An Introductory Lecture ON THE PRINCIPLES AND PRACTICE OF MEDICINE.

Delivered at St. Bartholomew's Hospital at the Commencement of that Course, 1893-94,

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GENTLEMEN,—Let me begin my first lecture on the Principles and Practice of Medicine by reading to you a passage from a medical text-book once famous, but long since gone out of use. The writer, Bernard of Gordon, Chancellor of the Faculty of Medicine at Montpellier, explains the nature of his work in a preface at once apologetic and confident, and ends with the sentence, which I will translate from his Latin: "This book was begun with the help of Almighty God in the illustrious university of Montpellier at the end of the twentieth year of our reading. In the year of the Lord 1305, in the month of July."[1] I quote him because this remark is suitable to myself. I am beginning to lecture to you on medicine at the end of the twentieth year of my reading in this hospital, for exactly that period has passed since the termination of my house physiciancy, a time which may justly be regarded as the beginning of the adult life of a physician and from which he ought to be competent to find his own way along the paths of medical learning. During these twenty years this hospital has been the place of my study, and what I propose to-day is to explain to you how I can best help you to attain a knowledge of medicine in this place. It is impossible not to feel some pride in being a teacher of medicine in such a hospital as this, where for more than seven centuries and a half the original purpose of our honoured founder Rahere has been carried out with ever-increasing efficiency. It is no inconsiderable honour to teach in a seat of medical practice and learning older than any college in either university, a foundation more venerable than nearly every institution of this ancient city. Our hospital was already flourishing when Henry FitzElwin, the first mayor, began to preside over the citizens of London. Magna Carta is, according to Sir William Blackstone,[2] the earliest extant statute of the realm, and at the date of its first draft our doors had been open to the sick for more than ninety years. Patients had been admitted and discharged here for 140 years before the first Parliament—with knights, citizens, and burgesses—was elected. Our wards have received the subjects of every English dynasty since the Conquest. The antiquity of St. Bartholomew's Hospital is, however, but a small part of its glory. The greatest consists in the vast numbers of the sick poor whom it has relieved and in the large additions to medical knowledge which have been made within its walls. I need hardly remind you that it was whilst he was in charge of this hospital that Harvey laboriously worked out his discovery of the circulation of the blood. It was here, too, that Pitcairn first showed the relation between rheumatic fever and affections of the heart, there that Pott elucidated the effects of disease of the bodies of the vertebræ, and here that Blackall took the first step towards a true pathology of renal disease. Where such great men have obtained instruction we may all be proud to learn and to teach.

You have most of you been here for some time and have learned to care for the place, where you have already made considerable progress in your studies. The progress of studies has from the earliest times been compared to a road, and everyone as he travels likes to pause now and then to consider how far he has gone and what he has yet to see. "Show to me, oh! charioteer, in what land I am," says a hero in a very old tale when he reaches an unknown plain. Let us, therefore, consider the position of medicine in that long career of study which you all began some years ago and have since continued in various distant seats of learning and at St. Bartholomew's Hospital. The old universities grew up exactly as the schools of medicine of London have grown up—viz., from the teaching, first, of isolated individuals and then from voluntary associations of teachers. Their oldest system of study was suggested by the academic ideas of the Greeks as they appear in Aristotle and Galen. The first group of studies was called the Trivium, or three roads, and consisted of grammar, rhetoric and logic. The second group of studies was called the Quadrivium, or four roads, and consisted of the branches of mathematics: arithmetic, geometry, astronomy and music. At Paris and in many other universities the students following the trivium and quadrivium were divided into groups called nations for purposes of general control which more or less discharged the function of the colleges at Oxford and Cambridge in relation to university life. Each nation had a chief official or proctor of its own. The faculties of theology, law, and medicine formed separate bodies, over each of which a dean presided and men of all nations belonged to each. The members of the faculties were no longer *in statu pupillari*. A trace of this superiority of the faculties exists at Cambridge to this day, where it is the custom for a master of arts or any lesser graduate, in signing a list as examiner, to add to his degree the name of his college, whilst a doctor, as if too well known to need such description, merely puts his degree. This, then, is the position of medicine; it is one of those subjects which are at the summit of a learned education, not used merely for the preliminary training of the mind, but fit to be its actual occupation for life. Different as is the method of medical study now from what it was in the infancy of universities, medicine occupies at this day exactly the same place in the scale of learning. You have all of you begun by an education based on the old trivium and quadrivium. You have learnt grammar and some part of the literary studies to which it is the introduction. You have studied several branches of mathematics and then you have passed through a second trivium of chemistry, biology, and physics and a second quadrivium of anatomy, physiology, histology, and pharmacology. All this has prepared you for the study of medicine, a study complex and far extended, including in it all the work of the physicians and assistant physicians, surgeons and assistant surgeons and of the lecturers and demonstrators of medicine, surgery, midwifery, therapeutics, pathology, forensic medicine, psychological medicine, and public health. The part in which I have, in conjunction with Sir Dyce Duckworth, to instruct you is called "The Principles and Practice of Medicine," and I will try and explain what that department is. Your long scientific trivium and quadrivium have given you a knowledge of animal life as a whole, of the human frame, and of the natural forces which affect it within and without. You have endeavoured to attain some knowledge of man as a constant. You have now to consider him in endless varying aspects as actually affected or likely to be affected by disease.

There is no such thing in nature as that exactly described body, whose minute details we have all carried in our heads from the dissecting-room to the examination-hall. You may satisfy yourselves as to this by examining day after day any particular organ in the post-mortem room. Take, for example, the heart. If you will count the tendinous cords inserted into the edge of the tricuspid valve you will find that their number and the details of their arrangement vary indefinitely. There may be seventy-three points of insertion or eighty, or many fewer, or a few more. If in every heart which you see opened you look at the orifice of the coronary sinus you will see that it sometimes has a large crescentic valve, sometimes a small one, sometimes a single thread instead of a valve, sometimes two or three threads, and sometimes a valve with one perforation and sometimes with several perforations. These are not results of disease but varieties of healthy structure. From Quain and other writers you may learn the prominent varieties of distribution of particular arteries, but if the arterial system as a whole is mapped out differences will be found in every body. The omphalo-mesenteric duct in the embryo joins the mesenteron. It usually disappears in the progress of growth, but sometimes part of it remains as a diverticulum from the ileum, called, from the anatomist who first demonstrated its true nature, Meckel's diverticulum. Examine all the cases in which it occurs—and it is not very rare—and you will find that it projects from the small intestine always in the same general region, but with indefinite variety of exact position and of shape. The lower part of the ileum is its locality, and out of eighteen cases in which I have come across it post mortem it had a different shape in every one and showed six varieties

[1] B. Gordonii Omnium Ægritudinum a Vertice ad Calcem. Opus Præclarissimum quod Lilium Medicinæ appellatur. P. 2. Paris, 1542.
[2] Commentaries on the Laws of England, vol. i., p. 85. Oxford, 1765.

of position. We all know that every human face differs from every other; but the other structures of the body are scarcely less varied. The normal is to be looked on not as any single condition but as a series with extreme limits between which there is indefinite variety. This applies to function as well as to structure, and hence there is no such absolute condition as health. We cannot define health in scientific terms, but we must use everyday language and consider it present when a man looks and feels well and is thought to be well by skilled observers. Whatever differs from this we call disease. Galen has a very sensible passage on this subject. "No person," he says, "can, properly speaking, be said to be perfectly in health, but we usually say such persons are in health as have no particular complaint and are able to discharge the common offices of life."[3]

Having grasped the idea of what disease is, you are ready to understand what the practice of medicine is. I cannot describe it better than in the words of one of its most illustrious professors, Herman Boerhaave,[4] whose lectures from 1709 to 1738 made Leyden the most famous place of medical study in Europe. He says: "That part of the science of medicine which teaches how to find out and cure the disease that afflicts the patient is called the practice of medicine."

The word "principles"—in Latin *principia*—is used in Cicero for the beginnings or first truths of a subject, and this is the sense in which it is applicable to the title of this lectureship. The principles of medicine are sometimes spoken of as if they were far-reaching, immutable laws of practice. In such a complex subject as medicine very few far-reaching laws can be laid down, and he who thinks he has made out a method of treating a disease need not be deterred from trying it by any fear that it may be contrary to some "principle of medicine." The principles of medicine are its elementary facts. The first of Newton's Principia or Principles is a demonstrable statement of fact—viz., that a body will remain still or continue moving in one direction unless compelled to alter its condition by other forces. Principles of medicine are such statements as: that when one side of the chest is dull on percussion and is on palpation devoid of vocal vibrations it contains fluid; that when bright red alkaline blood mixed with air is brought up by a patient it probably comes from his lungs; that when dark red acid blood mixed with food is brought up it probably comes from the stomach; and that when a patient is jaundiced his common bile-duct is blocked.

Such is the nature of the subject of these lectures, the Principles and Practice of Medicine. It is concerned with man in every aspect, for we have to know not only whether disease is present but also how to be certain that it is absent. We are thus entering upon a study which demands the most extended and the most minute observation of the human species in every circumstance, not only of outward life but of inward thought. Every cell of the body is considered by it, and no less every turn of the mind and every occupation of man. From the very beginning you should keep before your minds the complex nature of man; no one can treat patients successfully who forgets it. Dr. Arbuthnot, who was a physician of the best kind, has put it very well:

> "Am I but what I seem, mere flesh and blood,
> A branching channel with a mazy flood?
> The purple stream that through my vessels glides
> Dull and unconscious flows, like common tides;
> The pipes through which the circling juices stray
> Are not that thinking I, no more than they;
> This frame, compacted with transcendent skill,
> Of moving joints obedient to my will,
> Nurs'd from the fruitful glebe, like yonder tree,
> Waxes and wastes; I call it mine, not me.
> New matter still the mould'ring mass sustains;
> The mansion changed, the tenant still remains,
> And from the fleeting stream, repair'd by food,
> Distinct as is the swimmer from the flood."[5]

How many a man without structural change looks older than his years and feebler than his powers. Ovid,[6] writing to his wife, laments his failing vigour:

> "Jamque meos vultus ruga senilis arat
> Jam vigor et quasso languent in corpore vires,
> Nec juveni lusus qui placuere placent,
> Nec, si me subito videas, agnoscere possis:
> Ætatis facta est tanta ruinæ mea.
> Confiteor facere hæc annos, sed et altera causa est
> Anxietas, animi continuusque labor.
> Me quoque debilitat series immensa malorum
> Ante meum tempus cogit et esse senem.'

[3] De Sanitate Tuendâ, lib. i., c. 5.
[4] Aphorisms, ii.
[5] Gnothi Seauton. By the late Dr. Arbuthnot. Dodsley's Collection of Poems, vol. i., p. 209.
[6] Epistolæ ex Ponto, lib. i., ep. v.

He was in exile at Pontus. Had he been back in his beloved Rome how different his aspect would have been. I remember a patient aged sixty in the John Ward who was admitted for a kind of dysentery. His symptoms yielded to treatment, but he seemed no better, sank, and died. He had once been well off, had been convicted of fraud, and had emerged after some years in prison without means—

> "And that which should accompany old age,
> As honour, love, obedience, troops of friends."

When I examined his body after death I could find nothing anatomical to account for it. It is a well-established fact that long-continued subcutaneous injection of morphia is followed, even in those who were before absolutely truthful, by a complete disregard of truth. I was once able to detect the true cause of a malady by knowing of this moral symptom. The patient, now no more, was unsuspected of this habit and he consulted me for dysentery. I had known him in health for several years as a man of high character and punctilious honour. He had become feeble and emaciated. I asked him about his town house, his country residence, his travels, his food and so forth, but failed to find a cause for the dysentery. It had lasted so long that I thought malignant disease of the bowel unlikely, though the man's aspect suggested it. I did what I could for him at the time. I saw more of him, and once on what seemed a trivial matter he practised an elaborate deception upon me, which required him to write a letter containing a deliberate but ill-constructed falsehood. The letter was so unlike the man that I came to the conclusion that it was a symptom of disease, and, remembering that writers on the subject in France, where morphinomania is common, speak of untruthfulness as its sequel, I concluded that morphia might be the cause of his dysentery and of his emaciation; and when I saw him next I ascertained that this, my conjecture, was correct. The group of diseases known as hysterical depend upon the relation of the mind to the body, and whoever fails to remember this will again and again make wrong diagnosis and in consequence employ a mistaken treatment. No medical practitioner will ever excel who does not always keep before himself the fact that in every state of man the mind and the body react upon one another and are parts of a whole. How ought this vast subject to be taught here? I have thought it my duty to consider this question from the beginning since my appointment as lecturer. Our profession trains us to believe nothing in it upon mere authority, but it encourages us to respect experience, so I am inclined, in trying to settle this point, to consider how the subject has been taught, and to avoid, to follow, or to modify the methods of my predecessors after full consideration of each.

One of the earliest professors of the principles and practice of medicine in London is described by Chaucer. He was one of the companions of that famous pilgrimage which started for Canterbury from the Tabard in Southwark. It is highly probable that Chaucer has described the conversation of Dr. John of Gaddesden, a graduate of Merton College, Oxford, and one of the chief physicians of the reign of Edward III.:

> "With us ther was a doctour of phisik,
> In al this world ne was ther non him lyk
> To speak of phisik and of surgerye.
> * * * *
> He knew the cause of every maladye,
> Were it of hoot, or cold, or moyste, or drye,
> And where engendred and of what humour;
> He was a verrey parfight practisour.
> * * * *
> Well knew he the olde Esculapius
> And Deiscorides and eek Rufus;
> Old Ypocras, Haly and Galien;
> Serapyon, Razis and Avycen;
> Averrois, Damascien and Constantyn,
> Bernard and Gatesden and Gilbertyn."

His medicine consisted of a knowledge of these writers. Here upon the table are the works of most of them: Deiscorides, who, according to the delightful old Greek dictionary of Suidas, which was edited by the Greek tutor of the founder of the College of Physicians, was physician to Cleopatra; Rufus of Ephesus, who wrote in the reign of the Emperor Trajan; Hippocrates, the father of medicine, whom the physician only knew in bad translations, quotations and paraphrases; Haly Abbas, who wrote in Arabic in the tenth century and whose work was translated into Latin about the time this hospital was founded; Galen, physician to Marcus Aurelius; Serapion, the earliest of the Arabian physicians; and Razis, known to the Arabs as Muhammad

Ibn Zacharia al Rhasis, whose largest of books, called the "Continent," contains all he knew or had ever read, and who lived at Bagdad and died A.D. 932. Avicenna was another Arabian, born at Bokhara about 980, and whose two best known works are called "The Canon" and "The Canticle." Constantyn was, in the twelfth century, one of the famous teachers of the school of Salernum, a city where the study of medicine flourished to such a degree that it was known as Civitas Hippocratica, just as the parish of St. Bartholomew's-the-Less in Smithfield, which is altogether covered by this hospital, might very appropriately be called Parochia Hippocratica. Bernard was the Montpellier professor whom I quoted to you at the commencement of my lecture. Gaddesden, the probable original of Chaucer's physician, was a canon of St. Paul's, who called his medical book "Rosa Anglica," "because," he says, "as the rose excels all flowers so this book on medicine excels all others." Gilbertyn was an Englishman who wrote his "Compendium Medicinæ" in the thirteenth century. I ought to remind you that Chaucer's physician had not these fine editions in which to read his authors. He read them in vellum manuscripts. In the library of St. Paul's Cathedral you may see a specimen of exactly the kind of book he read, beautifully written in double columns. In it there is the following inscription in Latin: "The gift of Mr. John Somerset. This great Canon of Avicenna, who was a philosopher rather than a physician, as appears in the beginning of the first book by his own statement—the canon, to wit, of valuable meditation and elegant composition—was bought by me of Sir John, rector of the church of St. Michael, Wode-street, London. I am John Somerset, Master of Liberal Arts and Doctor of Law, Chancellor of the Exchequer of England. I give, grant and hand over to the library of the church of St. Paul of London, there to be kept clean and safe for the perpetual use and honour of the Catholic Church of Jesus Christ. I execute this deed the ninth day of May in the twenty-ninth year of King Henry, the sixth since the Conquest. Thanks be to God."

Lest you should think a poet insufficient evidence I will read you a piece of a matter-of-fact contemporary document—a Bull of Pope Clement V., dated Sept. 8th, 1308, a date five years subsequent to the completion of his "Lilium Medicinæ" by Bernard,[7] with whom I commenced. It begins: "Clemens Episcopus, servus servorum Dei, dilectis filiis universis magistris facultatis medicinæ in Montepessulano Magalonensis Diœcesis commorantibus salutem et apostolicam benedictionem," and goes on to lay down the course of medical study and to appoint examiners. The candidates are to read:—Galen: De Complexionibus; De Malitia Complexionis Diversæ; De Simplici Medicina; De Morbo et Accidenti; De Crisi et de Criticis Diebus. Avicenna: De Ingenio Sanitatis. Razis, Constantine, and Izac on the same subject. Hippocrates: Techni, Prognostics, or the Aphorisms and the Regimen of Acute Diseases; and Johanitius and Isaac de Febribus. Medicine was to be learnt by a course of reading and commentating. Such was the method of teaching and of study from the Hebrides to Damascus. In the Isle of Mull physicians of the clan MacBeatha or Beatoun painfully perused Gaelic versions which they had obtained from their teachers, hereditary physicians in Ireland,[8] O'Hickey, MacDonlevy, and O'Callanan. In England, France, Spain, and Italy a nearly uniform series of writers were read. The first person who taught medicine in St. Bartholomew's Hospital was of this school. I do not know his name, but his existence is known to us from a pupil of his who always speaks of him respectfully as "magister meus." This pupil was John Mirfeld, a canon of St. Bartholomew's Priory. He was a contemporary of Chaucer and was a member of the University of Oxford. Passages in his writings seem to indicate that he passed from the community of the hospital to that of the priory. As he was the first medical writer whose works were in part a product of this hospital I will quote to you part of his introduction as a further illustration of the aspect of medical teaching in the middle ages. I have translated it from a contemporary manuscript in the British Museum.[9] "Here begins the Breviarium Bartholomei. In the beginning of this compilation let us give thanks to God, trusting in whose goodness I have collected certain valuable things medical which I have found in diverse places of texts and glosses on the art of medicine and in the works of many who treated subtilely and fully of that science, and I pray that a good beginning and a good end may be granted to this my compilation, and that I may be kept from writing in it anything displeasing to God's will or that can do any of his servants harm. If not very learned, I am at least justified in putting down what my short memory would otherwise fail to observe." Then Mirfeld complains of the modern medical man, from whom, he says, he and his friends have suffered, but adds that modern patients too are hard to satisfy, "multi infirmi modernis temporibus valde impacientes sunt." In older times, he goes on to say, the patient would wait till the fourth or fifth day, so that the peccant material was digested and properly evacuated; but now "vero nisi statim in prima die senciant alleviare de medico diffidunt ejusque medicinas respuunt et contempnunt." In subsequent chapters he quotes again and again every one of the authors mentioned by Chaucer and the books enumerated in the bull of Pope Clement V., and he also often uses their statements without direct quotation. He sometimes relates cases, but bases no arguments upon them and does not give any description of the great epidemic of his own century, the Black Death, many of the victims of which he may have seen before they were laid in their graves in Charterhouse-square.

In the Middle Ages the principles and practice of medicine, it is clear, were taught by commentating upon and expounding authors, just as the classics are taught at the present day. With the revival of learning two new methods of teaching appeared; one startling but transient, the other valuable but incomplete. Paracelsus, Professor at Basle, when he began his lectures had before him the works of Galen and Avicenna, and a great brazen cauldron with a fire in it. Into the flames he flung "Macrotechni" and "Microtechni," "the Canon" and "the Canticle," an expressive way of beginning, and then he went on to lecture. He was not a very clear expositor, but what he said came to this: the old theories are all wrong; let us have a new one. The mediæval basis of medical knowledge was unsound, and his basis, though professing to be new, was in reality of exactly the same kind. The other and more valuable new method may in England be called that of Linacre, the founder of the College of Physicians, a body which has done more to maintain the learning and dignity of medicine than either Oxford or Cambridge, and which has exercised a powerful influence for good on medical study. Linacre's history is an instructive illustration of the effect which the general learning of the day has upon medicine. He went from Oxford, where Greek was just beginning to be taught, to Italy, and there studied under Demetrius Chalcondylas, a citizen of Byzantium, to whom it was a living tongue as well as a literary pursuit. He grew deep in Greek literature and recognised the superiority of Greek medicine over that of mediæval times. The Hippocratic school observed disease and drew conclusions from their observations. The first step forward was to make Hippocrates and Galen known in their original language or in accurate Latin translations. To this Linacre devoted himself. He translated several of the works of Galen, and in addition to thus setting before students an example of pure ancient medicine he founded in 1518 the College of Physicians, every Fellow of which was from the first devoted to the new medicine and which has never been less enlightened since. Linacre's method of teaching was to make students grasp the meaning of the authors of the Greek school and thus incite them to see patients after this excellent example. The progress of events showed that this was the right method for the time. The actual sayings of Hippocrates and Galen rather than their method were for a time the more respected, but successive steps in the application of their method led to its complete use, and men learnt gradually that observation, and observation alone, was the true basis of medicine. It is interesting to note how gradually the fourth or modern method of learning and adding to medicine grew from the knowledge of the sound ancient method. First of all Dr. Caius, an inhabitant of this hospital, Linacre's devoted follower, who decorated his tomb, added to the splendour of his college, and was himself the founder of a college, wrote a somewhat dry and crabbed English treatise—"A Boke or Counseill against the Disease commonly called the Sweate or Sweatyng Sicknesse"—of the greatest interest as the first account from a scientific observer of an epidemic in England. Then came Harvey with his discovery of the circulation of the blood, the greatest aid ever given to medicine by one man. He was well read in Greek science. He himself says that it was a passage in Aristotle which first suggested to him the circulation of the blood. A copy of the opuscula of Galen which is in the British Museum library, and which I discovered to have

[7] Mémoires pour servir à l'Histoire de la Faculté de Médecine de Montpellier, p. 45. J. Astruc, Paris, 1767.
[8] British Museum Manuscript, additional, 15,582 &c.
[9] Harleian, 3.

been Harvey's, is filled with careful notes in his handwriting. The manuscript notes of his lectures which have been published show what close original observation of medical cases he had made in this hospital and elsewhere. He is the first man of the school of Linacre who not only knew the ancient lesson-book but practised its lesson to the full. It is true that he did this less in the domain of the principles and practice of medicine than in that of anatomy and physiology.

Francis Glisson, as far as medicine was concerned, went a step further and published in 1650 his treatise on rickets, the first complete account, clinical and pathological, of a disease by an English physician. Little Britain, the street which passes one of our gates, is not a very splendid thoroughfare, but when I lived in it, as I did in our college most happily for twenty years, I used often to think that it had a learned and literary splendour imperceptible to unlettered eyes, since Glisson's "Tractatus de Rachitide," Dryden's noble poem on the death of Cromwell, and Addison's "Spectator" were all printed in it.

Sixteen years after Glisson's book, the "Observationes Medicæ" of Sydenham appeared, and here the fourth and last method of teaching medicine begins. It took 150 years to learn the lesson of Hippocrates and the Greeks from the time that the true study of their books was begun by Linacre. Sydenham is unlike every previous teacher of the principles and practice of medicine in the modern world. Throughout his collected works he quotes or mentions Hippocrates exactly twelve times,[10] mentions Galen[11] once, and, excepting one passage in which he names thirteen authors who approve of copious bleeding in the plague, he scarcely alludes to any other medical writer of the past. He endeavours to describe diseases exactly as he observed them in patients, and to record the effect of regimen and remedies upon them. Sydenham had made most of his observations on private patients, but his method of medicine made obvious the vast importance of hospitals as places of medical improvement and study. He may justly be regarded as one of their greatest benefactors; but how very slowly the vast importance of minute and careful records of observations in them was grasped is shown by the fact that Dr. Alexander Marcet,[12] in 1817, could find no systematic record of cases in any London hospital. Individuals of course kept valuable notes of their own cases. I can myself remember the institution in this hospital of the keeping of regularly written records of all cases. What greatly increased observation and care in consequence surround the patients. No better example of the necessary advantage to patients of the study of medicine in relation to their illnesses could be given. Nowhere else can the results of fatal diseases be accurately observed on an extended scale, and it is in its constant reference to morbid anatomy that the teaching of medicine at the present day is superior to that of Sydenham. Not that he would have neglected it if it had been included within his opportunities of observation. The regular use of morbid anatomy in relation to clinical medicine is largely due in England to Dr. Matthew Baillie, whose "Morbid Anatomy" appeared exactly a century ago.

I have now described to you four systems of teaching the principles and practice of medicine—viz., (1) the mediæval system or study of compilations and commentaries; (2) the system of Paracelsus or the substitution of a new hypothesis for all ancient hypotheses; (3) the system of Linacre or study of the ancient observers; and (4) the system of Sydenham, which consists in the observation of patients and meditation upon its results. The first three are obviously limited in their application; the last is the only one which is capable of expansion and of variety of detail. How can we in our time best work it out. My own opinion is that the principles and practice of medicine, like every scientific subject, or indeed every subject, must be taught in the closest relation to the actual facts on which the statements of the lecturer are based. Believing this, my aim shall be to make these lectures illustrate what you can see in the hospital. I shall endeavour to make any medical books and histories of cases which I may have seen or read of, throw light upon things that you may see in the several parts of the hospital, so as to help you first to see what is to be seen, and next to arrange and retain it in your minds. How can I best make the lectures illustrate the hospital? It would not be right, even if it were possible, to exhibit living patients here as specimens. Every proceeding with regard to living patients must in some way or other involve their good. In the wards and the out-patient room the public discussion of their symptoms between teacher and student tends to promote an accurate diagnosis and careful treatment of each case. The same applies to a clinical lecture on a particular case or set of cases; the necessary additional and fuller consideration must be of use to the sick man. In a general course on medicine, however, I feel some doubt as to whether it would be right, if it were practicable, to exhibit diseased persons, and there are, of course, only a few diseases which could be made plain to a large audience. After careful consideration I have decided not to attempt it. I shall try as far as possible, with the aid of the medical registrar, to let you know what cases illustrative of my lectures are in the wards, so that you may go round with the physicians and see them. A further part of your observation I shall direct to the post-mortem room and to our fine pathological museum. By continuation in the post-mortem room of observations begun in the wards you will attain an accurate method of finding out what is the matter with the patient and of knowing what is likely to occur—of diagnosis, that is, and of prognosis. There, too, you may see tested the methods of treatment I shall describe.

In this hospital there is a vast harvest of medical knowledge. You are here to reap it. It is for me to show you how you can do so with most advantage to yourselves, an advantage which is not selfish, since it will be inevitably shared by your future patients. If you go to look at a battle-field you come to understand the battle best by reading a full account of it and by studying the map beforehand, then with an informed mind looking at the ground itself, and afterwards again refreshing your introductory reading. If you are visiting a cathedral it is best to read its history and the description of its architecture first. If you take a book with you it will distract your observation on the spot and deprive it of all originality. The same rules seem to me to apply to observation in the wards in relation to lectures on the principles and practice of medicine. You will hear what I have to say, let us suppose, on pleurisy. I shall take some trouble to let you know what cases of pleurisy there are in the hospital. When you go round with the physicians you will observe the actual facts of each case. My previous lecture will, I hope, have helped you to observe with instructed eyes, and you can for yourselves confirm and fix in your minds a sound knowledge of what I have said, or you can reject it and put it away if it does not accord with your own clinical observations. I will promise to give you some opportunity in each lecture to revise these critical observations. The conditions of your medical study make it difficult for you to read much. You can, perhaps, do little more than peruse some good text-book, such as that of Dr. Hilton Fagge, that of Dr. Bristowe or that of Dr. Frederick Taylor. Any one of these would be very useful to you. It will be another part of my duty to acquaint you with the medical library. There is scarcely any medical book, good or bad, which may not be looked through to some useful purpose if read in the light of the observations of the reader; but there are a few great authors who illuminate the mind of their readers and make them see clearly what they had often looked at but never before fully understood. These are worth reading often. Heberden in England and Trousseau in France are of this rare merit. Then there are new books on particular subjects, such as the admirable treatise of Dr. Gowers on Diseases of the Nervous System, with which you ought to make some acquaintance, even if you have not time to read them through. You will find your medical reading much easier and more interesting if you can spare time now and then to read a page or two in other books than your text-book. After its primary object of making a man ready to observe, the true use of reading in medicine is to make him think. The difference between perfect and imperfect knowledge is not so much in the facts known as in the way they are treated by the mind. Perfect knowledge is that which has been thought over; imperfect knowledge that which has only been remembered. This is particularly noticeable in medicine where a few observations well thought over will make a man far more useful than the mental retention of abstracts of hundreds of books. I hope I have made clear to you my opinion of the way in which the principles and practice of medicine can best be taught here—namely, by the foundation of what is said in the lectures upon what may be seen in the hospital; by the use of the lectures as a guide to the cases. It is the way in which the

[10] The Whole Works of that excellent Practical Physician, Dr. Thomas Sydenham. The ninth edition. Corrected from the original Latin by John Pechey, M.D. London, 1729. Pp. v., ix., xvi., 2, 172 (twice), 181, 186, 246, 281, 321, 392. [11] Loc. cit., 172.

[12] An Essay on the Chemical and Medical Treatment of Calculous Disorders. London, 1817.

subject was taught by Dr. Peter Mere Latham, as is clear from those of his lectures which are published. Dr. William Baly's lectures on Dysentery, though not actually delivered here, show that when he was lecturer his method must have been the same. I know that it is that of my colleague in the lectureship who, with characteristic kindness, has honoured me by his presence to-day. It was that of Dr. Gee, the learned physician whom I succeed. It will not be easy to follow a lecturer so well read in medical books, so full of medical observations, and so clear in the arrangement and the expression of his ideas.

An Address

ON THE

SURGERY OF THE AIR PASSAGES AND THORAX IN CHILDREN.

Delivered at the Royal College of Surgeons of England,

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(*Concluded from p. 796.*)

Foreign Body in the Air Passages—(continued).

ENLARGED and especially caseating mediastinal glands occasionally give rise to serious trouble in the following ways: 1. By pressing on the trachea or bronchus. 2. By one or more glands ulcerating into the trachea or bronchus and causing obstruction or even becoming detached and impacted in the larynx. 3. A suppurating mediastinal gland not infrequently is the cause of a gangrenous ulcer of the lung. A communication is sometimes made with the œsophagus, or the suppuration from the gland discharges into the pleural sac. Fatal hæmorrhage may arise from the ulceration involving a branch of the pulmonary artery. During the last few years many examples of such conditions have been brought before the medical societies. Dr. Wynn Westcott recorded the case of an apparently healthy boy aged three years who died suddenly from dyspnœa. A gland was found to be impacted in the larynx and another at the bifurcation of the trachea. Just above the bifurcation and on the right side there was an ulcerated opening. Mr. R. W. Parker in the twenty-fourth volume of the Transactions of the Clinical Society records a sudden and fatal dypsnœa in a child aged one year. Tracheotomy was performed without benefit and a gland was found post mortem just above the bifurcation of the trachea, having ulcerated its way into the trachea by a circular opening. The gland was attached to the opening by a pedicle which seemed to consist of part of the capsule, several of the bronchial glands were caseous, and there was tuberculous consolidation of the upper part of the right lung. In the Pathological Transactions of 1889 the late Dr. Gulliver showed the larynx and trachea from a child aged four who was admitted to St. Thomas's Hospital suffering from dyspnœa; the child became well enough to be discharged. A few days afterwards it was readmitted and died soon from a similar attack of dyspnœa. The specimen (Fig. 8) shows that the lowest part of the trachea is quite blocked by a caseous mass which has escaped into it from an adjoining tuberculous lymphatic gland on its right side. A piece of red glass has been passed from the trachea into the suppurating cavity, from which the greater part of the diseased gland has been discharged. There is a similar softening gland about half an inch higher up. The first attack of dyspnœa was no doubt caused by pressure of the abscess and was relieved by its bursting. The fatal attack was due to the caseous gland making its way into the trachea. Dr. Edward Wright of Huddersfield relates a case where he performed tracheotomy for dyspnœa in a child, and as no relief followed a catheter was pushed down to the bifurcation and ruptured an abscess; about an eggcupful of fetid pus was coughed up and the patient recovered. There can be no doubt that the abscess was caused by the breaking down of a bronchial gland. If there is good reason to believe that the difficulty of breathing in any case depends upon pressure from a mediastinal abscess careful exploration of the bronchi must be attempted; possibly, too, the introduction of a curette might be indicated if abscess or gland matter was found in the trachea or bronchus. Dr. Percy Kidd in the thirty-sixth volume of the Pathological Transactions gives the case of a girl aged fifteen who died in the waiting-room of the Brompton Hospital from profuse hæmoptysis. It was found post mortem that the bleeding was due to the perforation of a large secondary branch of the pulmonary artery, the result of ulceration commencing in the bronchus and set up by a calcareous gland pressing on the air tube. In the same volume Mr. John Poland gives the case of a child aged one year and eight months who died from a suppurating bronchial gland opening into the œsophagus and left bronchus. In the thirteenth volume of the St. Bartholomew's Hospital Reports Dr. Gee gives several cases in young children where gangrenous abscess in the lungs was the result of a caseous gland ulcerating into a bronchial tube. Excluding the presence of a foreign body, suppuration of a mediastinal gland opening into a bronchus is certainly the most frequent cause of a gangrenous abscess of lung in children. In the following two cases treated at the Hospital for Sick Children, Great Ormond-street, an attempt was made to relieve this condition by operative interference.

Case 58.—The patient, a child aged four years and two months, was admitted in 1892, having been ill for six weeks with cough, wasting, hæmoptysis and hæmatemesis. The signs pointed to a possible localised collection in the left pleura. A rib was resected, but exploration failed to evacuate pus or to open any cavity in the lung. Death took place nine weeks after operation quite suddenly after two ounces of bright blood had been brought up. At the necropsy the operation wound was found to be firmly healed and the rib had partly re-formed. The lung was adherent and gangrenous opposite the seat of exploration. A caseous gland was found, an abscess around which had opened into the œsophagus and left bronchus. Other tuberculous glands were found in the neck and in the mediastinum.

FIG. 8.

Case 59.—The patient, a child aged five years and nine months, was admitted to hospital in 1890 with signs of a cavity in the posterior part of the right lung. The breath was fetid, the temperature was high and hæmoptysis had occurred on several occasions. At Dr. Barlow's request I explored the lung, removing parts of the sixth and seventh ribs in the right interscapular region. The lung was found to be adherent, but several exploratory punctures failed to reach any cavity. The child died collapsed seven hours after the exploration. At the necropsy an abscess cavity the size of a walnut was found to be invading the root of the right lung and opening into the right bronchus. Caseous glands were found close to the abscess, but there were no signs of tubercle elsewhere. Several patches of gangrene were present in the lung at some distance from the abscess cavity.

The situation of the primary source of trouble in these cases is unfortunately so unfavourable that the chance of successful surgical interference is a very remote one.

Traumatic Pneumothorax.

Laceration of the lung may occur in children from a crush of the chest without fracture of the ribs, the rupture of lung tissue being probably due to its compression between the contusing force transmitted through the elastic ribs and the air imprisoned by spasmodic closure of the glottis at the time of the accident.[1] The prognosis is hopeful in children even in severe cases of injury to the thorax. The following twelve cases are taken from the records at St. Thomas's Hospital and constitute the most definite ones treated during the last few years. In all of them pneumothorax was undoubtedly present as a prominent symptom.

The following cases recovered:—

Case 60.—The patient, a girl aged five years and a half, was admitted to hospital on Sept. 27th, 1888. She had been run over by a cart, the wheel passing over the chest, and she coughed up blood-stained mucus immediately. On admission there was no collapse, but there was rapid and shallow respiration. She had a fracture of the inner third of the right clavicle and of the right first rib, close to the sternum. The right chest moved badly and was hyper-resonant, the breath sounds were feeble and there was no emphysema. The difficulty of respiration increased and the bandages had to be left off on the following day. The pulse was 144, the respiration was 52, and the temperature was 102·4° F. The condition after this gradually improved, and on Oct. 17th the child was practically well and left the hospital on Oct. 22nd.

Case 61.—The patient, a boy aged eleven, was admitted to hospital on June 16th, 1888. He had been run over by a light van and was collapsed on admission. The tenth and eleventh left ribs were found to be fractured. On the 19th there was tympanitic resonance over the whole of the left lung. The breathing was metallic and faint, with so-called *bruit d'airain*. The heart was pushed to the right of the sternum. On the 22nd his colour had improved and the boy was much better. Tympanitic resonance did not now extend to the right of the mid-line. There was some fluid in the left pleura. On July 6th he was discharged well.

Case 62.—The patient, a boy aged seven, was admitted to hospital on Aug. 12th, 1888. He had been run over by a cart. The right clavicle in the outer third was fractured and he suffered from emphysema of the neck, and well-marked pneumothorax of the left side, which measured thirteen inches, the right side measuring eleven and a half inches. The heart was displaced to the right side. There were fracture and dislocation of the jaw. On the 16th the breathing, which had been very laboured, had become quiet. On the 22nd the clavicle had united and the emphysema of the neck had been materially reduced. The left side of the chest was still tympanitic. He was discharged well on Sept. 1st.

Case 63.—The patient, a boy aged thirteen, was admitted to hospital on June 20th, 1890. He had fallen off a cart which he was driving and the wheel had passed over his chest. He was admitted shortly afterwards suffering from dsypnœa and lividity. The eighth to the eleventh ribs on the right side were fractured, just anteriorly to their angles. Respiration became easy soon after admission, but there was hyper-resonance of the right side of the chest in front, with feeble breath and voice sounds. There was dulness at the right base behind. He was discharged well on July 9th.

Case 64.—The patient, a boy aged three and a half years, was admitted to hospital on June 21st, 1890. Half an hour before admission the wheel of a light cart had passed over his back somewhere below the shoulders as he lay on his face. He was unconscious for ten minutes and coughed up a small amount of blood on regaining consciousness. On admission there were dyspnœa and fracture of the eighth to the tenth left ribs in front of the angles. On the 22nd the whole of the left side of the chest, except the very extreme apex and base behind, was hyper-resonant, and the breath and voice sounds were feeble. He was discharged well on July 16th.

Case 65.—The patient, a girl aged five years, was admitted to hospital on Jan. 23rd, 1890, having been knocked down and run over by a cab. She was brought to the hospital at once in an unconscious state. Four or five of the lower right ribs were found to be fractured at their angles. The child had hæmoptysis and a large hæmatoma on the left frontal bone. The right side of the chest was strapped and bandaged. The respiration was very laboured and rapid. On the 24th the right lung was more resonant than the left and the breath sounds were cavernous and metallic and not so distinct as on the left side. The respiration was 60. On the 25th the respiration was 78 and the breath sounds were more distinct over the right lung. On the 30th there were tympanitic resonance over the front of the right lung and dulness at the base behind. The breath sounds were much feebler than on the left side. There was gradual improvement after this, and the child left the hospital well on Feb. 16th.

Case 66.—The patient, a boy aged eleven years, was admitted to hospital on July 9th, 1891, having been run over by a cart. On admission he was collapsed and the respiration was rapid. His vomit was streaked with blood. The right side of the chest was prominent and movement was deficient. The fifth rib on the right side was broken close to the sternum, one of the broken ends projecting under the skin, whilst the other was depressed and could not be raised. There was emphysema of the right side of the chest behind, extending to the neck above and to the loin below. Liver dulness was much diminished and he was suffering from dyspnœa. He was discharged well on the 22nd.

Case 67.—The patient, a boy aged six years, was admitted to hospital on Oct. 31st, 1891, the wheel of a cart having passed over the lower part of his chest. He was collapsed. The fourth to the ninth ribs were broken on the right side at about the middle. Respiration became very laboured, the right side of the chest scarcely moved at all, and there was emphysema over the back of it. The percussion note was tympanitic and the breath sounds were hardly audible. He was discharged well on Nov. 25th.

The following were fatal cases of injury to the chest:—

Case 68.—The patient, a boy aged six years, was admitted to hospital on March 19th, 1879, having been run over by a light cart. There were right pneumothorax and extreme dyspnœa, for which he was tapped with an aspirator ten hours after admission, which was followed by great relief; some frothy sputum mixed with blood was also expectorated. On the 26th he was tapped again for dyspnœa and blood and air were withdrawn. He died on the 27th. Post mortem there was found to be hæmato-pneumothorax with rupture and collapse of the lung; no ribs were broken.

Case 69.—The patient, a boy aged three years, was admitted to hospital on June 25th, 1889, having been run over by a waggon, a wheel passing over his chest. On admission he was collapsed. There was dislocation forwards of the sternal end of the right clavicle and fracture of the second right rib close to the sternum. He was bleeding from the mouth and nostrils, and his vomit was streaked with blood. The left side of the chest was more prominent than the right, and the breathing was feeble, with tympanitic percussion. The heart was displaced to the right of the sternum. He died on July 9th. Post mortem the left side of the chest was found to be much larger than the right. On removing the sternum from the right side of the chest without opening the left side the heart was found to be pushed well over to the right of the sternum, and when the left side was opened the heart was found to have receded considerably to the left side. The whole mediastinum was pushed to the right side, the left pleura bulged towards the same side, and the left half of the diaphragm was depressed. The right lung and the pleural cavity were normal. The left pleura contained about a pint of bloody fluid, with large masses of fibrin floating on it. The whole interior of the left pleura was lined with a uniform layer of opaque fibrin. The left lung was absolutely and completely collapsed towards the vertebral column. No injury of any kind could be discovered to account for pneumothorax, either in the lung or the thoracic walls. Pneumothorax was present, since the pleura contained only one pint of fluid, and yet the lung was completely collapsed. Also the displaced heart and diaphragm &c. returned to more or less normal position on opening the left pleural cavity.

Case 70.—The patient, a boy aged six years, was admitted to hospital on April 6th, 1890, having been knocked down by a hansom cab; he said that a wheel went over his chest. No injury to the latter could be made out, though the thorax appeared to be flattened. Soon after admission he commenced to suffer from pain in the abdomen and lay with his legs drawn up. About an hour before death he expectorated an ounce of bright blood. He died five hours after admission. Post mortem the right pleural cavity was opened under water and was found to contain air at considerable pressure. The diaphragm had previously been noticed to be depressed on that side, causing the abdomen to be extremely tense. The right lung was collapsed, with a ragged tear in the lateral part of the lower lobe two inches long and one inch deep. There were three ounces of blood in the right pleural cavity. The left lung showed

[1] Holmes on Surgical Diseases of Children.

a small bruised patch on the axillary surface and on it there were several subpleural bubbles of air. There was no fracture of the ribs.

Case 71.—The patient, a lad aged sixteen, was admitted to hospital on June 7th, 1893, having been run over by an omnibus, which was said to have passed over his abdomen. He died two hours after admission. Post mortem there was found to be a slight abrasion on the upper part of the abdomen, but no other external wound. The track of the wheel was shown by—(1) complete transverse separation of the right kidney into two pieces; (2) a tear on the right surface of the right lobe of the liver; (3) a tear on the left edge of the spleen; (4) a tear on the outer part of the left kidney; and (5) a bruise half an inch wide across the descending colon at the level of the left kidney. Although there was no fracture of any part of the thorax there was a rupture on the antero-lateral aspect of the upper lobe of the right lung, which extended from the base of that lobe nearly to the apex and passed inwards towards the vertebral column for half the thickness of the lobe. There was pneumothorax on the right side, with two ounces of blood and slight hæmorrhage into the free edge of the lower lobe of the left lung, and there was a little blood in the left pleural cavity, but no air. Emphysema of the mediastinal tissues was just appearing above the clavicles.

In four of these cases the thorax was run over by a light cart, in four by a heavier cart, in one by an empty van, in one by a waggon and in one by a cab; and the abdomen was run over in one case by an omnibus. Four terminated fatally. One or more ribs were ascertained to be broken in eight of the number, whilst in four the ribs were believed to be intact, including three fatal cases, this being made certain by examination after death. Emphysema was present in five cases, in two of which it was limited to the neck, and probably the air made its way there from the mediastinum, since the ribs were intact. Hæmoptysis occurred in seven and fluid in the pleural cavity in seven, this fluid being found to be blood in the four fatal cases. The following represents the injury to the ribs—(1) Fracture of the first right rib close to the sternum, with fracture of the inner third of the right clavicle; (2) fracture of the tenth and eleventh left ribs; (3) fracture of the second right rib close to the sternum and dislocation of the sternal end of the right clavicle; (4) fracture of the eighth to the eleventh right ribs just anteriorly to the angles; (5) fracture of the eighth to the eleventh left ribs in front of the angles; (6) fracture of four of the five lower right ribs at the angles; (7) fracture of the fifth right rib at its junction with the cartilage; and (8) fracture of the fourth to the ninth right ribs at their middle. Perhaps as regards injury the last case given is the most remarkable, for it occurred in a lad aged sixteen, and the force was evidently over the upper part of the abdomen, yet there was no fracture of the ribs; the upper lobe of the right lung was ruptured. Mr. Page[2] reports a case of Traumatic Pyo-pneumothorax, with Gangrene of the Lung, in which recovery took place. The boy was aged thirteen years and had been run over by a heavy cart. Mr. Page remarks that pneumothorax as an immediate consequence of fracture of ribs in children is exceedingly rare and refers to Dr. S. West's experiments in his Bradshaw Lecture on Pneumothorax, in which he explained the variety of pneumothorax and the frequency of emphysema by what he describes as the force of cohesion between the pleural surfaces. Pneumothorax was an immediate symptom after the accident in six cases and was noticed within the next forty-eight hours in the remainder of the St. Thomas's Hospital cases.

Hernia of the Lung.

Hernia of the lung may occur as a complication of an open wound of the chest or be consecutive, taking place after the cicatrisation of the wound. In very exceptional instances it may develop without an external wound, where a subcutaneous injury has weakened the thoracic wall. According to Cloquet a hernia results from a strong expiratory effort whilst the glottis is closed, simultaneously with a blow on the chest, the compressed lung tending to escape at the spot of least resistance.

Case 72.—The patient, a boy aged eleven years, was admitted to St. Thomas's Hospital on Feb. 24th, 1890, having been knocked down by the shaft of a cart on the previous day. There was a tender lump the size of a hen's egg situated over the left costal margin in the position of the seventh, eighth and ninth costal cartilages, which disappeared on his lying down. There was impulse on coughing and the breath sounds could be heard. The lump was soft to palpation and resonant on percussion. The cartilages directly under the tumour were bent inwards in a cuplike depression; no fracture, however, was detected and there was no sign of any disease of the lung or of air in the pleural cavity. There was very slight bruising of the soft parts over the swelling. On March 1st the bruising was more apparent and the tumour was crepitant. On the 18th very little if any swelling appeared on coughing and the depression formerly felt had disappeared.

H. Huyberter reported in 1890 the case of a Singalese boy aged twelve years who was admitted into the Kalutora Hospital for injury of the chest caused by falling on a stake. There was a transverse wound of the left chest wall between the sixth and seventh ribs through which protruded a hernia of the lung of the size of a closed fist, which was cold, tightly constricted and purple in colour. The wound was enlarged and the piece returned. In twenty days he was discharged well. Professor Chosel of Brussels reported a case of supra-clavicular hernia of the lung in a thin and weak child three years of age who was admitted to hospital for abscess of the thigh. During the administration of chloroform artificial respiration was necessary, and soon afterwards a tumour about the size of an orange was noticed over the left clavicle. The skin was not discoloured and the swelling was tympanitic and reducible with a soft vesicular murmur. It increased in size when the child cried. The application of a spica bandage and pressure soon produced a cure. Professor Chosel suggests that the energetic movements of artificial respiration caused the lung to force its way through the lax connective tissue and the weak and wasted muscles of the supra-clavicular region.

The Surgical Treatment of Empyema.

The best results are to be obtained in the treatment o empyema in children by early free incision and effective drainage; but there are differences of opinion as to how this can be most effectively carried out. Aspiration in the majority of cases can only be regarded as a temporary measure, and if persevered in has usually to be supplemented by incision. It is undeniable that certain cases of empyema become perfectly well after repeated tappings, but failure is to be expected as the rule, and in consequence of the delay entailed the lung has a much smaller chance of satisfactory expansion. Aspiration is most likely to have a satisfactory result when the effusion is sero-purulent in character or very localised. Rapid reaccumulation, increasing severity of the symptoms, or the effusion becoming thicker in character are indications for more active treatment. Besides failing as a curative measure aspiration has its own special disadvantages. Occasionally it fails to evacuate the pus owing to some defect in the working of the instrument or from the amount of solid material present; and the puncture may be followed by hæmorrhage into the pleural cavity, by leakage or by emphysema. In a case reported by Dr. Evans[3] exploration with the aspirator was followed by subcutaneous emphysema extending over the trunk, scrotum and face. For mere exploratory purposes a large syringe made on the same principle as a subcutaneous injecting syringe is preferable, and when pus is found in the pleural cavity I would strongly favour under most circumstances its free evacuation without further delay. In children the removal of a portion of a rib has no disadvantages and many advantages, for without it satisfactory drainage by a soft tube is impossible in young children and particularly in chronic cases, where the ribs are crowded together. A silver tube is painful and apt to produce caries of the ribs by pressure. The great advantage to be gained by removing a piece of rib is that the pleural cavity can be thoroughly explored with the finger, adhesions imprisoning remote collections of pus can be broken down and solid masses of lymph can be removed. There is very little increase in the shock of the operation, and the dressings and management of the tube are attended with much less discomfort to the child. Experience has proved that there is no increased risk of pyæmia and very little danger of necrosis of the cut ends of the rib. After a considerable experience of rib resection in empyema I have never had reason to regret doing it, and in a large proportion of cases I am sure that the cure has been hastened by the immediate removal of coagulated exudates. Occasionally it may happen that the condition of the child makes it appear desirable that a simple incision without chloroform should be made, but with care in administration of the anæsthetic and attention to the position of the child during

[2] THE LANCET, March 24th, 1888.

[3] THE LANCET, Feb. 2nd, 1889.

operation no such exception need be made. The removal of a piece of rib adds, perhaps, two or three minutes to the length of the operation. The periosteal elevator should be used with gentleness, or the pleural cavity may be opened prematurely. About one and a quarter or one and a half inches of the selected rib are sufficient to remove, and in children this can easily be done with suitable cutting forceps, taking care that all that part of the rib which has been denuded of periosteum is taken away and that the forceps are sufficiently sharp to avoid bruising or splintering the bone. When the rib is excised for drainage it is not necessary or advisable to remove any of the periosteum in ordinary cases. For the drainage, however, of very chronic empyemata, where the pleura is much thickened parts of two or three ribs may be taken away with the corresponding periosteum and pleura, so that a free opening may be maintained for a lengthy period. I am not speaking now of Estlander's operation, which is performed for an entirely different object and is never required as a primary measure. For reasons pointed out by Mr. Godlee, an opening just below and anteriorly to the angle of the scapula is best when the empyema involves the entire pleural cavity, but in each individual case the position must be selected according to the physical signs, and occasionally a more anterior opening may be required. After the rib has been excised a narrow-bladed knife is introduced at a point corresponding to the mid-line of the rib, and as pus escapes the incision is enlarged. It is easy to regulate the escape of the pus, and the finger should not be introduced until the cavity is nearly empty. If the breathing or pulse is in any way unsatisfactory an antiseptic compress should be placed over the opening, the patient should be turned on to the affected side and time for recovery should be allowed. The exploration with the finger must not be attempted if there are indications of general hæmorrhage from the pleural surfaces, but when permissible every part of the cavity should be gently explored and mopped out with wool sponges firmly held by forceps. If the child is taking the anæsthetic well and has no paroxysmal coughing and also if there is reason to believe that no communication with a bronchus exists, irrigation with a warm boracic solution will make the toilet complete. In the majority of cases, however, irrigation is not advisable, and no such special advantage is likely to accrue from it as to render it desirable to run any risk of fluid finding its way into the tubes. After a suitable drainage-tube has been inserted and made secure absorbent dressings are applied, wood-wool tissue making a convenient and economical application. The dressing should be changed in a few hours, and afterwards at least once a day whilst the discharge is free. In uncomplicated cases the tube may often be dispensed with from the third to the tenth day, but a director should be afterwards occasionally inserted to make sure that no reaccumulation is taking place. The best indications for leaving out the tube are the temperature and the amount and character of the discharge. The discharge, when all causes of irritation of the pyogenic membrane have been removed, may at once cease to be purulent and become serous. This, perhaps, is the best indication for leaving out the drainage-tube. After-irrigation of the cavity is very seldom necessary or advisable, and should only be done if the discharge remains or becomes very offensive. Sometimes, several weeks after the wound has apparently healed, a superficial abscess appears under the cicatrix, containing a few drachms of pus. Such a local abscess heals quickly after incision. The chief conditions which may retard or prevent convalescence or cause death are: 1. Profuse and long-continued discharge from the empyema becoming septic, either from a communication with the bronchus or rarely with the œsophagus, or by want of attention to detail in the cleanliness of the operation or after dressing of the wound. 2. The character of the empyema, especially when it arises from a tuberculous abscess of the lung or a suppurating bronchial gland. It may be in connexion with a carious rib or disease of the spine. In exceptional cases the empyema may be pyæmic in origin, or it may depend on some foreign body, or on fracture of a rib, or on an extension of an abscess from some other part (such as the liver) into the pleural cavity. As will be shown by statistics, cases are not infrequently complicated by pericarditis or peritonitis from an extension of the inflammatory condition. The case may be complicated by having a collection of pus shut off from the general cavity by adhesions or by continued or consecutive trouble in the lungs. Time will only allow of a bare enumeration of these conditions, but it is necessary to consider at greater length a very important and common cause of the discharge continuing—viz., the inability of the lung to expand and of the cavity to contract so as to become obliterated. In early life the ribs are soft and pliable and the thoracic wall falls in more readily than in adults; but in certain cases, owing to long previous pressure on the lung and great thickening of the pleura, it is impossible for the lung to expand, for the diaphragm to rise, and for the chest wall to fall in sufficiently to allow of a complete cure. Unnecessary interference in slowly contracting cavities is unwise; time must be given for the wonderful reparative and adaptive powers which children possess to exert themselves, and extensive operations for the purpose of closing the residual cavity should only be undertaken after careful consideration of the particular case. Only disaster may be expected when the case is complicated by tuberculosis or by many of the special conditions which have been enumerated as tending to prevent or retard cure. If, however, the child is in fair general condition and it is clear that the obstacles to obliteration of the cavity are mechanical active interference and free removal of a portion of the thoracic wall are followed by great improvement and often by complete success. When the residual cavity is comparatively small the removal of portions of two or three ribs, with scraping of the interior of the cavity, is generally sufficient.

Case 73.—The patient, a child aged three years and ten months, was admitted to the Hospital for Sick Children, Great Ormond-street, on Aug. 22nd, 1891, under the care of Dr. Barlow, with left-sided empyema. Two days after admission a portion of the eighth rib was excised and fifteen ounces of thick flaky pus were evacuated. At the end of ten weeks the progress was stationary and the discharge was considerable. On exploration the cavity was found to extend upwards and backwards behind the scapula, and portions of the sixth, seventh and eighth ribs were removed with their periosteum and corresponding pleuræ. In four weeks' time a drainage-tube was no longer necessary and on Jan. 4th, 1892, the child was discharged well. This case is an example of a modified form of Estlander's operation.

Case 74.—The patient, a boy aged eleven, was admitted under my care at St. Thomas's Hospital in August, 1891, with discharging empyema of the right side of one year's duration. His illness commenced in October, 1891, and in the following April a swelling formed below and externally to the right nipple; this burst spontaneously and had continued to discharge until the time of his admission. He had suffered from cough and night sweats for six months previously to the bursting of the abscess. On admission the boy was in an exhausted and miserable condition, with offensive pus escaping from the sinus on every movement of the chest. The right side of the chest was somewhat sunken and it was dull all over; the breath sounds were very feeble and distant, and vocal fremitus was much diminished. On exploration the cavity was found to be very extensive, extending from the base to the apex of the lung, and the surface of contracted lung was three inches from the chest wall. Any prolonged operation was out of the question. I resected, therefore, about two inches each of the fifth, sixth and seventh ribs in the mid-axillary line and two inches of the ninth rib just below the inferior angle of the scapula. Great improvement followed; the boy gained strength and became comparatively fat. By Oct. 14th he was so much stronger that with the view of assisting the side of the cavity to fall in a vertical incision was made in the posterior axillary line, and several inches of the eighth, seventh, sixth and fifth ribs were resected, together with the periosteum and greatly thickened pleura. The skin incision was brought together and a drainage-tube was inserted. The boy was so well on Nov. 13th that he was allowed to go home; the cavity had greatly diminished in size and there was very little discharge. On Jan. 28th, 1892, he was readmitted, a relapse having taken place. The discharge had increased in quantity and the cavity in size, and the patient was looking much thinner and paler than he was at the time of his discharge. On Feb. 1st further portions of ribs, from the second to the ninth inclusive, were excised and the thickened pleura was much more freely removed. No attempt was made to close the wound, but the cavity, which easily admitted the closed fist, was packed with long strips of iodoform gauze dipped in iodoform emulsion. Some of the bone removed was newly formed from periosteum left behind at the previous operations. The packing was changed each day; at the dressings a remarkable view of the interior of the thorax and of the shape and action of the diaphragm was visible. Rapid improvement took place, and on April 11th the boy was discharged with a perfectly sound side. He has remained in good health since, and there has been no sign of

lateral curvature developing. I have since tried this plan of packing very chronic cavities in other cases and have found it to be most effectual. The mistake made in the treatment of this boy was at the second operation, which was not sufficiently radical in its character.

Ollier, in his remarks on Estlander's operation, states that ribs should not be resected too near their anterior extremities or their later development is interfered with and great thoracic deformity is produced. Resection of the first rib is dangerous and useless; ribs should not be removed posteriorly to their angles, and the length of the portions removed must be proportionate to the size of the cavity. Full success requires completeness of operation. Being anxious to see the after condition of the chest and spine in cases of empyema treated by excision of rib, I examined during last year twenty-six cases. The shortest interval after leaving hospital was eighteen months and the longest six years, the average time being two years and ten months. The children were all in good health, except that dorsal caries was present in one case (unknown to the friends). In twenty-two cases the spine was quite straight and in the remaining four the amount of lateral curvature was very slight. The breath sounds were normal in most of the cases, but in a few they were less audible on the affected side below the level of the scar. Two of the patients had had double empyema treated by resection of the rib on both sides; they were in good health, though in one the breathing was very abdominal in character and there was some retraction of the chest wall on both sides in front. The condition found corresponded very closely with the after state of twenty-four cases of empyema in children reported by Dr. E. B. Hastings and Mr. H.N. Edwards.[4] The following is a list of the cases at the Hospital for Sick Children, Great Ormond-street.

Case 75.—The patient, a boy aged five years, was in hospital three years ago with left-sided empyema. There was a large scar below the angle of the scapula, with some fusion of the ribs. The child was in good health. There was slight lateral curvature, with concavity to the right side in the upper dorsal region and to the left side in the lumbar region. The breath sounds were good.

Case 76.—The patient, a boy aged four years and a half, was in hospital one year and nine months ago with left-sided empyema. He was a fat, healthy child with a scar below the left scapula. The rib re-formed perfectly. The breath sounds were good.

Case 77.—The patient, a girl aged eight years, was in hospital four years ago with left-sided empyema. There was a scar below the angle of the scapula, and the rib re-formed perfectly. There was slight retraction of the left lateral aspect of the chest. Her general health was good. The breath sounds were feeble below the level of the scar. There was slightly marked lateral curvature with concavity to the right.

Case 78.—The patient, a well-grown boy aged ten years and a half, was in hospital three years ago with right-sided empyema. There was a scar in front of the posterior axillary line where the eighth rib was excised. The rib had perfectly re-formed. The breath sounds were good.

Case 79.—The patient, a pale-looking boy aged five years and a half, had mid-dorsal caries and was in hospital three years ago with right-sided empyema. There was a scar in the mid-axillary line where a portion of the eighth rib had been removed; the rib had perfectly re-formed. The breath sounds were good.

Case 80.—The patient, a girl aged seven years, was in hospital three years and a half ago with right-sided empyema. There was a scar below the angle of the scapula where part of the eighth rib had been removed; the rib had perfectly re-formed. The child was in fair health. The breath sounds were weaker on the right side, but perfectly audible.

Case 81.—The patient, a girl aged five years, was in hospital two years ago with right-sided empyema. There was a scar in the mid-axillary line, the rib having perfectly re-formed. She was in good health and the breath sounds were normal.

Case 82.—The patient, a girl aged three years, was in hospital when she was fifteen months old with left-sided empyema. There was a scar in the mid-axillary line, the rib having re-formed perfectly. Her general health was good

Case 83.—The patient, a boy aged four years and a half, was in hospital three years ago with left-sided empyema. There was a scar below the angle of the scapula; the rib had perfectly re-formed. There was some falling in of the side. The breath sounds were equally audible on both sides, but there was slight bronchitis.

Case 84.—The patient, a girl aged four years, was in hospital one year and nine months ago with left-sided empyema. There was a scar below the angle of the scapula; the rib had perfectly re-formed. The child was well developed and the breath sounds were normal.

Case 85.—The patient, a boy aged six years, was in hospital four years ago with left-sided empyema. There was a scar in the mid-axillary line where a portion of the eighth rib had been removed. There was slight retraction of the side; the breath sounds were good, but feeble below the scar. His health was good and the rib had re-formed perfectly.

Case 86.—The patient, a boy aged eleven years, was in hospital four years ago with left-sided empyema. There was a scar in the posterior axillary line where the seventh rib had been resected; the rib had re-formed perfectly; the chest was somewhat retracted on the affected side and the right shoulder was a little raised. The breath sounds were weak over the lower third of the left lung. There was slight lateral and high dorsal curvature, with concavity to the left and compensating lumbar curve.

Case 87.—The patient, a boy aged eight years, was in hospital two years ago with right-sided empyema. There was a scar in front of the lower angle of the scapula where a portion of the eighth rib had been removed; the rib had re-formed, the child was in good health and the breath sounds were normal.

Case 88.—The patient, a lad aged fifteen years, was in hospital four years ago with left-sided empyema. There was a scar at the opening below the angle of the scapula three inches and a half long, as well as over the fifth rib in front of the posterior axillary line. The ribs had re-formed perfectly. There was some lateral curvature with concavity to the right side. His health was good. The breath sounds were weaker on the affected side, but they were otherwise normal. There was no retraction of the side.

Case 89.—The patient, a girl aged four years, was in hospital eighteen months ago for left-sided empyema. The ninth rib had been removed in the posterior axillary line and had re-formed perfectly. The spine was straight. The breath sounds were audible but feeble below the scar, and the child was in good health.

Case 90.—The patient, a girl aged three years, was in hospital two years ago with right-sided empyema. There was a scar below the angle of the scapula and the rib had re-formed perfectly. The breath sounds were good, as was also the general health.

Case 91.—The patient, a boy aged ten years, was in hospital two years ago with left-sided empyema. There was a scar where the sixth rib was resected in the anterior axillary line. His health was good. The breath sounds were feeble below the scar in front but good everywhere else, and the rib had re-formed perfectly.

Case 92.—The patient, a girl aged ten years, was in hospital eighteen months ago with right-sided empyema. There was a scar where the sixth rib had been removed in the mid-axillary line. She was a tall, thin child, but straight and fairly developed. The breath sounds were normal and the rib had re-formed perfectly.

Case 93.—The patient, a boy aged five years and a half, was in hospital two years ago with left-sided empyema. There was a large cicatrix below the angle of the scapula in the anterior axillary line where parts of the eighth and ninth ribs had been resected. The ribs had re-formed. The breath sounds were good and the boy was well and strong.

Case 94.—The patient, a girl aged nine years, was in hospital four years ago with left-sided empyema. There was a scar below and behind the posterior angle of the scapula. The rib had re-formed. The child was in good health and the breath sounds were good. There was slight retraction of the side.

Case 95.—The patient, a boy aged four years, was in hospital a year and a half ago with left-sided empyema. There was a scar in front of the angle of the scapula, where a portion of the seventh rib had been removed. The rib had re-formed and the child was in good health. The breath sounds were normal.

Case 96.—The patient, a boy aged five years and a half, was in hospital four years and a half ago with right-sided empyema. There was a scar in the posterior axillary line, where part of the sixth rib had been removed. His health was good. The breath sounds were weaker below the scar but quite audible, and there was slight dulness just below the cicatrix.

Case 97.—The patient, a boy aged nine years, was in hospital four years ago with right-sided empyema. There was a

[4] THE LANCET, Aug. 20th, 1892.

scar in the mid-axillary line where a portion of the eighth rib had been removed. The ribs had re-formed perfectly. The breath sounds were good and the general health was satisfactory.

Case 98.—The patient, a girl aged seven years, was in hospital two years ago with left-sided empyema. Although she had been in hospital for five months she was quite strong and well developed. There was a scar below the angle of the scapula where a portion of the ninth rib had been removed. She breath sounds were good and the rib had re-formed perfectly.

Case 99.—The patient, a boy aged twelve years, was in hospital one year and nine months ago with double empyema. There were symmetrical cicatrices below the angles of the scapulæ, where portions of the ribs had been removed. The ribs had perfectly re-formed. The chest was fairly well developed and the boy was in good health. Breathing was feeble at the bases and very abdominal in character.

Case 100.—The patient, a boy aged eleven years, was in hospital six years ago with double empyema. The ribs had been removed below the angles of the scapulæ on both sides. The breath sounds were good. The spine was straight and there was no deformity. His general health was good.

The following is an abstract of a table of eighty-six cases of empyemata treated at St. Thomas's Hospital in the years 1880 to 1892 inclusive: Of the 86 cases 20 were fatal; 4 were cases of double empyema, and of these 2 were cured by resection of the rib on both sides; 1 ended fatally without operation, and 1 was fatal from diphtheria after resection of the rib on one side and incision on the other; 2 of the 86 cases were really sub-pleural, not pleural collections of pus: of these, one, due to fractured rib, recovered; the other, due to phthisis, ended fatally. In this case the pleural surfaces were adherent and the abscess was very large, involving the whole side of the chest from the apex to the base and from the heart to the spine, and was situated between the pleura and the ribs.

Ages of Cases.—Under one year old 6, or 66 per cent. fatal; one to four years old 22, or 40 per cent. fatal; four to ten years old 46, or 10 per cent. fatal; ten to sixteen years old 12, or 16 per cent. fatal.

Operations.—The following operations were performed: 54 resections on 52 patients, 18 incisions on 18 patients, and 12 patients treated by aspiration alone; five of these died. The causes of death in the 20 fatal cases were: Tuberculosis, cellulitis, abscess of brain, amyloid disease, bronchitis, 1 each; diphtheria, 2; pericarditis and broncho-pneumonia, 2; pericarditis, 3; broncho-pneumonia, 3; pericarditis and peritonitis, 1. In 4 cases a necropsy was made. In 8 cases the pus formed a distinct localised swelling externally to the ribs previously to operation. Number of double empyemata, 4; of the right side, 30; of the left side, 52.

Cases of Empyema treated by Free Opening and Drainage at the Hospital for Sick Children, Great Ormond-street.

1880	....	Simple incision	....	4	recovered	....	4	relieved	....	4 died.
1881	....	,, ,,	....	9	,,	....	1	,,	....	5 ,,
1882	....	,, ,,	....	6	,,	....	—	,,	....	—
1883	....	,, ,,	....	9	,,	....	9	relieved	....	2 died.
1884	....	,, ,,	....	7	,,	....	3	,,	....	2 ,,
1885	....	,, ,,	....	16	,,	....	1	,,	....	3 ,,
1886	....	—	....	7*	,,	....	3	,,	....	—
1887	....	Rib resected	....	12	,,	....	3	,,	....	2 died.
1888	....	,, ,,	....	15	,,	....	2	,,	....	8 ,,
1889	....	,, ,,	....	14	,,	....		—	....	—
1890	....	,, ,,	....	15	,,	....		—	....	7 died.
1891	....	,, ,,	....	18	,,	....		—	....	2 ,,
1892	....	,, ,,	....	21	,,	....	2	relieved	....	4 ,,

85 cases treated by incision with 51 recoveries, 16 relieved, and 16 deaths.
129 ,, ,, by rib resection ,, 99 ,, 7 ,, ,, 23 ,,

* Rib resected in 4 of the cases, with recovery.

From the post-mortem records of the Hospital for Sick Children, Great Ormond-street, I have examined 54 cases; 12 of these had been treated by aspiration, 31 by free incision and 31 by incision together with excision of rib. The children were very young. There were under one year, 6; between one and two years, 17; between two and three years, 11; between three and four years, 8; between four and five years, 6; between five and six years, 3; between six and seven years, 0; between seven and eight years, 2. Some of the patients died a considerable time after the operation, but all had evidence of some empyemic trouble remaining. The empyema was on the right side in 24 cases, on the left side in 28, and on both sides in 2. Twenty of the cases were found to be tuberculous in character, as evidenced by tubercles found in the lungs or other organs, caseating glands or caries of the spine. Marked pericarditis was found in 9 cases, and in 4 of these the pericardium was distended by several ounces of purulent fluid; in 7 of the 9 the empyema was on the left side, in 1 on the right side and in 1 it was double. Peritonitis was present in 5 cases, and was most intense just beneath the diaphragm and about the spleen. The pericarditis and peritonitis appear to have been direct extensions of the inflammatory process. In only one case was cerebral abscess found; the abscess was in the left frontal lobe and contained three ounces and a half of pus. The empyema was on the right side and had been treated only by aspiration, the first aspiration being made three months before death. Only 1 case died at the time of operation—viz., a child of one year and seven months, and it is not certain whether death was due to chloroform or to syncope from the sudden release of pressure. The majority of the cases died after an interval of some weeks or months after the operation. Necrosis of rib as a result of the excision of rib was only found in 1 case. In 3 treated by simple incision caries of ribs produced by pressure of the drainage-tube was present.

When empyema in children is simple in character and not complicated by tuberculosis or other unfavourable conditions it will, if treated by effective and early drainage, get rapidly well. If, however, for some unfortunate reason surgical interference is delayed the recovery may be tedious. Some years ago I was about to operate on an apparently healthy boy nine years old for cleft palate, but he took the anæsthetic so badly that he was put back to bed unoperated upon. The same night his temperature was high and he had a rigor and within two days there were signs of fluid in the left pleura. Some ounces of sero-purulent fluid were withdrawn by the aspirator; two days later the temperature was still high and fluid had re-collected, and on exploration it was found to be purulent. A resection of rib was performed at once and eighteen ounces of pus were evacuated. Within a fortnight the boy was convalescent and the operation wound soundly healed. I mention this as an example of what may be expected if immediate surgical assistance is rendered. In cases of double empyema the necessity for early interference is even more indicated so as to give the lungs the best possible chance to expand. It is generally considered wise to wait a few days after opening one side before attacking the other. Good results have, however, been recorded when both sides have been opened at the same operation. Two good examples of recovery a considerable time after the operation for double empyema have been referred to amongst the twenty-six cases examined at the Hospital for Sick Children, Great Ormond-street, and it will be noted that of 4 patients at St. Thomas's Hospital 2 were cured by resection of rib on both sides, 1 died without operation and 1 died from diphtheria contracted during convalescence after operation.

Abscess of lung in children may be caused by a foreign body, it may be secondary to caseating mediastinal glands, to pneumonic consolidation of the lung, to hydatid, to extension of abscess from some other part, or may be the result of a pyæmic process. In considering the advisability of operative interference it must always be remembered that spontaneous recovery is possible and there must be definite evidence by exploratory puncture of a fairly accessible cavity, or else the medical advisers must be satisfied that the patient is clearly going the downward path and that operation affords the only reasonable chance of saving life. A number of successful cases are on record of operative interference; but they are probably few in comparison with the unrecorded failures to afford relief. It is often difficult in abscess of the lung to satisfactorily shut off the pleural cavity from infection; and if the abscess is situated near the root of the lung the chances of dangerous hæmorrhage are considerable. Adhesion between the pleural surfaces cannot be diagnosed with any certainty beforehand. If on exploration no adhesions are found and there is a sufficient probability of a cavity in the lung, parts of one or more ribs must be removed to allow of careful suturing of the pleural surfaces, and so providing adhesion before the abscess is actually drained. But even with the greatest care the amount of adhesion may be insufficient. In a case of bronchiectasis on which I operated at the Hospital for Sick Children, Great Ormond-street, in the belief that it was an abscess, a week was allowed to elapse between the exploration and the drainage; and yet the adhesions gave way in part and a fatal pyo-pneumothorax resulted. When adhesions are found already established they are not always to be trusted. Dr. Hawkins had a case under his care at St. Thomas's Hospital of a boy fourteen years old, who, after

three weeks' illness, was admitted with signs of a localised cavity in the left axillary region. On examination pus was found with the exploring needle at the depth of two inches and a quarter. Mr. Clutton removed a portion of the sixth rib and found the pleural surfaces adherent; the cavity was opened and three days later there was a general empyema of the left side, which was treated by a free opening behind the angle of the scapula. The boy fortunately made a good recovery. I do not wish in the least to discourage operative interference in well-selected cases of abscess of the lung, but I feel very strongly that some abscesses are so situated and are so complex that they should not hastily be interfered with. We should always remember that young children have a much better chance of spontaneous recovery than adults. The following case is an interesting example of an abscess of the lung making its way to the surface without the formation of empyema.

An infant aged thirteen months was admitted to St. Thomas's Hospital with a swelling in the left posterior triangle of the neck immediately above the clavicle, about the size of an egg, communicating with a smaller swelling below the clavicle. There was fluctuation between the two swellings, with impulse on coughing. The left lung was dull in the upper third behind, with diminished breath and voice sounds. An incision was made above and below the clavicle, and on introducing the finger the pulsations of the aorta could be felt and the origin from it of the left subclavian. On percussion the previously dull area of lung had become resonant. An operation was performed on March 19th, 1892, and the child died on April 6th of the same year. At the post-mortem examination the left pleural cavity was found to be obliterated. The apex of the lung was excavated into a large cavity the size of an orange; the walls were ragged and indurated and were more or less lined with cheesy material. Tubercle was found in the right lung, spleen and bronchial glands.

The treatment of a living hydatid of the lung is known to be attended with a special danger of suffocation by the fluid contents escaping into the bronchial tubes. Such an accident is much less likely to occur when suppuration has taken place and the lung surrounding the cyst has been thickened by inflammatory irritation. The specimen exhibited is from a case where this accident occurred at St. Thomas's Hospital. It shows the left lung of a boy aged nine years. In the lower lobe there is a cavity about three inches wide, within which lies a solitary hydatid. A bristle has been passed from the cavity by an ulcerated aperture into the left bronchus, and by this opening the fluid within the hydatid escaped after puncture and led to death in a few minutes by suffocation. The boy was admitted to hospital under the care of Dr. Bristowe on Oct. 7th, 1890, with evidence of a collection of fluid in the lower part of the left chest. On tapping with an aspirator a small quantity of clear fluid escaped from the cannula before communication with the exhausted bottle was made, but not afterwards. The boy was in evident distress and passed between three and four ounces of clear frothy fluid by the mouth; in two or three minutes subcutaneous emphysema was found all over the left side of the chest, and death took place in seven or eight minutes.

A boy aged nine years and six months was admitted to the Hospital for Sick Children, Great Ormond-street, under the care of Dr. Sturges, in June, 1890, suffering from slight cough and some flattening of the left side of the chest. There were deficient resonance at the left apex under the clavicle and almost absolute dulness below the second rib. Vocal fremitus was absent in front below the second rib. Several ounces of clear, non-albuminous fluid of low specific gravity were withdrawn by an aspirator. The dulness diminished, but the breath sounds continued weak. The patient was kept under observation for four months, and improved slightly. No further operation was undertaken.

The safest and most radical plan to adopt when hydatid is suspected is to tap with a fine exploring syringe, and not with the aspirator. If the characteristic fluid is found the surgeon should cut down upon the hydatid and deal with the cyst by drainage as if dealing with an abscess.

On Feb. 5th, 1892, I saw with Dr. Hawkins a lad sixteen years of age at St. Thomas's Hospital who had evidence of a large hydatid cyst at the upper part of the left lung. Clear fluid had on two previous occasions been drawn off with an exploring syringe, and there was evidence of an inflammatory condition of the cavity, and that a communication with a bronchus had become established. The boy's condition was urgent, and it was decided to operate at once. A curved incision was made along the lower border of the pectoralis major towards the apex of the axilla, and about one inch and a half each of the third and fourth ribs were resected. On incising the pleura the surface of the lung appeared to be healthy; it was secured by sutures as firmly as possible to the parietal pleura, and on inserting a trocar and cannula into the lung in an upward and inward direction a large cavity was entered and some pus escaped. The opening was immediately freely enlarged and a quantity of seropurulent fluid with dead hydatid membrane came away. Whilst coughing a gush of clear fluid took place and a second hydatid, living and of large size, appeared at the opening and was removed with forceps. Some bleeding ensued, but ceased on the cough subsiding. No attempt was made to explore the cavity or to wash it out. The edges of the opening were firmly secured to the skin and a large drainage-tube was inserted. The boy left the hospital quite well on April 21st.

Suppurative pericarditis when diagnosed is to be treated on ordinary surgical principles—viz., by cautious incision and drainage. Many successful cases of such treatment have been reported. Time will only permit of brief reference to the pericardial suppuration which is a direct extension from inflammation of the pleura. In looking through the notes of the fifty-four fatal cases of empyema I was much struck by the fact that in four of the left-sided empyemata a considerable collection of pus was found in the pericardium at the post-mortem examination. Of ten cases of suppurative pericarditis recorded by Knoff, in six the pericarditis was secondary to inflammatory processes of the pleura and lungs, and in the youngest patients minute and repeated examination did not reveal any of the ordinary symptoms of pericarditis. The difficulty of diagnosis when the pericarditis is a complication of empyema is very great. It would seem, however, to be only right in a case of left-sided empyema which is progressing unfavourably to enlarge the opening or make a fresh one sufficient to ascertain if fluid is present in the pericardium. The healthy thorax may be freely opened in children with comparative safety. In certain cases of suppuration beneath the diaphragm or of hydatid cyst of the liver the most convenient way of establishing free drainage is through the thorax. Immediately the thoracic cavity is opened the healthy lung recedes and a flap of pleura may then be raised from the diaphragm and attached to the parietal pleura, thus shutting off the thoracic cavity. Directly this cavity is closed the lung again becomes active and drainage of the abscess can be established without fear of lung complications arising.

ABSTRACT OF A

Clinical Lecture

ON

IMPROVEMENTS IN THE TREATMENT OF EQUINO-VARUS.

BY RICHARD DAVY, F.R.C.S. ENG., F.R.S. EDIN. &c.,

SURGEON IN CHARGE OF THE ORTHOPÆDIC DEPARTMENT, WESTMINSTER HOSPITAL.

GENTLEMEN,—It is now twenty years ago since I re-opened the subject of operations on the bones of the tarsus for the relief of intractable club-foot and performed a series of experiments on the dead body as well as upon actual sufferers from club-foot, in order to prove the soundness of my conclusions. The course of treatment, which was based upon the attack especially on the bones of the tarsus, but by no means only upon the bones, met with its fair share of opposition at first; but gradually, and in a great measure due to the many operations which were done at the Westminster Hospital and by other surgeons both at home and abroad, this unfavourable judgment has softened down, and a deformity of bone is recognised now as a salient factor in the causation and perpetuation of club-foot, and tarsotomy is sanctioned as being an operation which is well worthy of admission into surgical practice. Without recapitulating the many varieties of section of the tarsus (partial and complete) that you have seen me perform, I

would draw your attention to the ordinary method of procedure in cases of inveterate club-foot. In our orthopædic department you hear mothers advised to carry out gentle manipulations themselves on infants until they are weaned and have at any rate some control over the bladder and rectum. This is good advice, for if the case is a simple one benefit results; if a severe one, the mother has the satisfaction of doing something for her child in the right direction, whilst the surgeon is spared the mortification of seeing his handiwork spoilt or ruined by the soiling of retentive bandages and resultant sores. So soon as this delay, which is necessitated by the stern edict of cleanliness, has been obviated, you cannot set to work too briskly, for as the twig is bent so will it grow, and the daily experience of orthopædic surgery proves that delays are dangerous. I wish to particularly direct your attention to a difference in procedure necessary in osteotomy as compared with tenotomy operations—viz., the time of attack on the tendo Achillis; the equinus part of the deformity had better be undertaken first and not last, as has been for many years taught. Why this change from last to first? My answer is that in cases of sufficient severity to warrant an osteotomy the very introduction of tarsotomy has forced this alteration, because you require as a base of your operation on the tarsus that the os calcis should be so far as possible in a normal position (you would not in architecture build upon a faulty base, not even to reproduce a leaning tower as at Pisa); moreover, the elongated tendo Achillis lessens spasm on the divided tarsus in just the same fashion as it does on an ordinary fractured leg. As there should be no tension after an osteotomy of the tarsus there can be no value in having the tendo Achillis as an agent or *point d'appui*. Before, however, I leave the equinus part of our subject let me demonstrate to you on this foot a new departure in the treatment. Until the year 1882 a tenotomy operation was a surgical procedure for lengthening an abnormally short tendon; the tendo Achillis, for instance, was divided, and from three-quarters of an inch to two inches in length was gained. Here, again, osteotomy was given as the advantage of scoring not only in length but also in breadth—in latitude as well as longitude. Let me demonstrate this. I make an incision in a vertical plane through the heel tissues about three-quarters of an inch from the heel and sever the spur of the os calcis, with the tendo Achillis attached to it, from the anterior and major segment of the os calcis. The tendon, although undivided, is apparently elongated by the drawing up of the bone; then by slicing off to the right or left of the major segment and by affixing the spur to this freshened right or left osseous bed the tendon is made to act upon the foot, either to the right or the left, by adjustment and fixation. Surgically the inner adjustment would favour and promote varus, and the outer adjustment would favour valgus. The lateral new position becomes a factor in treatment, the valgus union of bone being planned for varus, and the varus union of bone for valgus. I notice that a transplantation of the tubercle of the os calcis has been advocated recently for the shortening of the tendo Achillis in talipes calcaneus. I much prefer the excision of a suitable portion of the tendon, and then the suturing of the adjusted ends of the same. The first case of subcutaneous section of the spur of the os calcis instead of subdivision of the tendo Achillis by tenotomy for the relief of talipes equino-varus was performed in this hospital by myself on July 10th, 1883, now nearly ten years ago. This was carried out very much on the same plan as Ogston followed in his genu valgum cases—namely, by a sloping cut and by pushing the part containing the tendon attached to the outer side of the foot. The boy on whom this operation was performed on the left foot did very well and left the hospital on Aug. 12th of that year. My second and third cases were also operated upon in 1883, and they both did well. My fourth case was in 1887. Since then I have adopted the open plan of operating instead of the subcutaneous method, because you can carry out the necessary adjustment and fixation more precisely, and you ensure a greater degree of certainty of bone joining bone, with maintenance of the altered lateral play of the tendon. To prevent the projecting edge of the spur of the os calcis you can vertically split the spur into two unequal parts in the same linear plane as the fibres of the tendo Achillis; then freshen up the outer or inner side of the anterior segment and fix by sutures or by a straight pin the halves on either side of the corner of the anterior segment of the os calcis.

I will next touch upon the conjoint operation, the consideration of which we left in order that we might consider first the equinus part of our operation. I have been much impressed of late by some excellent results which have been obtained by the conjoint application of tenotomy on the inside and osteotomy on the outside of the same foot. The tendons of the tibialis anticus and posticus are very freely divided on the scaphoid bone by an open wound at a point where they can be seen and felt, for a free division of skin and subcutaneous fat permits these structures to be readily seen or felt; and for the minimisation of scar I generally plan my incision so as to dip into the crease of inversion. The subcutaneous tenotomy of the posterior tibialis tendon is not always easy and it is not to be accomplished on fat infants, and anything like half measures on any tendon are worse than useless; so it is advisable to carry out absolutely a complete and not a partial division of both the tibial tendons and the adjacent structures and then forcibly to ascertain to what extent rectification can be asserted. On noticing the furrows on the outer side of the foot you will have a gauge of the amount of bone to be cut out. This wedge of bone need not involve materially any bone, excepting the cuboid. My object in performing an osteotomy here is to prevent the parts relapsing into their varus position inside by consolidation of the bony structure on the outside. Thus the inner spring segment of the bony arch of the foot is left unimpaired and the outer sustentative part is but yet further strengthened. The two edges of chiseled cuboid are neatly fixed by a deep silver suture. It is not very easy to insert

this suture; I use the tubular bradawl you see here. You must get far back from the edge of the bony cleft and mechanically render the elbowing of the wire at the apex of the fissure as small as may needs be. Try to get as firm a hold as possible, neatly twist and cut the wire, turn down the twist and let it remain. The wound should be dressed and guarded with extreme care and cleanliness; the foot, now supple and tractable, is put into proper position and so fixed. I am partial myself to the plaster-of-Paris gaiters for these young patients who are suffering from club-foot. A skilful use of bandages on the part of the surgeon during the traumatic stage of treatment is better than any complicated machine for the feet sold by the mechanician. The child improves, we will assume, and the feet are symmetrical and in good position, but on attempting to walk, and notably so in children, the mother notices that her child inverts either both or one of the feet; this is due to paralysis of the rotators outwards of the thigh, leg and foot. For many years this condition of things gave much anxiety. Instruments were ordered to promote eversion and they were worn and inevitably broken by the children. The mother's life consisted mainly in taking the child to the surgeon or

to the instrument-maker, or, again, to the bootmaker. I have introduced to the notice of orthopædic surgeons a very useful eversion strap, boot and pelvic band. The leathern or elastic strap is fixed on the outer and front part of the sole of the boot. It is easily detachable and it passes up the outer side of the leg around the back of the knee, and along the course of the sartorius muscle and gluteus maximus to the vertebral column, where it is buckled. These straps may be worn either on the right or left side or on both, according to the nature of the case. The strap is most efficient and there are no hinges or steels to break; the cost is reasonable and the improved gait is very noticeable. Messrs. Wright and Co, of New Bond-street, manufacture this eversion strap and belt. An elastic band or plain strap maintains the long strap well against the side of the leg and thigh, and it is worn inside the trousers.

Let me advise you, gentlemen, to remember that about three-fourths of the cases of club-foot can be well treated without recourse to any of these severe operations; for the remaining one-fourth the simpler treatment is useless. Let me emphasise the fact that constant attention to detail is imperative in the conduct of club-foot treatment, which differs in no respect from the careful practice necessary for any case in general surgery.

IPECACUANHA IN HÆMATEMESIS.

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THE use of ipecacuanha in dysentery, both acute and chronic, and in various kinds of hæmorrhage occurring in other parts than the bowel, such as the lungs and uterus, has been discussed in all the modern text-books on Materia Medica, but the treatment of hæmatemesis by the drug is not insisted on or mentioned. The treatment which I have found to be remarkably successful in the following cases has probably not been attempted, from fear that the emetic action of ipecacuanha might seriously increase the discharge of blood. It has generally been customary to give some sedative to the stomach, such as opium, before administering the large doses which are given in cases of acute dysentery, and this has evidently been thought to be necessary to avoid or control the emetic action of ipecacuanha. In my own practice in the East, where I have treated cases of dysentery for some years, I have seldom found the previous use of sedatives to be necessary, though at times it has been imperative on account of the exhausted condition of the patient, and I have dreaded the possibility of any vomiting with accompanying syncope. Moreover, the emetic action of ipecacuanha was supposed by Higginbotham to be the reason of its value in checking uterine hæmorrhage (especially of post-partum character) by producing a distraction as it were from the energy of the vessels of the womb. So this, again, would be an argument against its use in hæmatemesis. Dr. Ringer, in his text-book, describes the usefulness of the drug in various forms of vomiting without blood, such as the vomiting of pregnancy, of chronic alcoholism, in whooping-cough, and in attacks of nausea, but it was mostly in these instances given in very small doses. In the following cases I gave large doses, from a drachm upwards, with very satisfactory results. How the drug acted in them is not clear, but I am inclined to think that it has a double action. The mucous membranes are known to be stimulated and an increased flow of mucus is produced both in the stomach and intestines, and it may be that the blood-supply is diverted from its dangerous work, so to speak, similarly to Higginbotham's theory, and that thereby the actual escape from the vessels is lessened; but I think that the depressing effect of the medicine has also some influence, as undoubtedly the pulse and heart beat in my cases were distinctly slowed. It is known that the older practitioners bled a patient almost to fainting in order to check hæmorrhage, and this result was due to the slowing of the heart, so I imagine that some similar condition was brought about by the influence of ipecacuanha in addition to the diversion of the blood-supply before suggested. These cases are vividly recalled to my mind by reason of the excessive blood-loss and the extraordinary improvement which they showed after the exhibition of drachm doses of ipecacuanha in the form of a bolus with glycerine. I have to thank my friend, Surgeon-Lieutenant-Colonel Laurie, President of the Hyderabad Chloroform Commission, for the suggestion some years ago.

CASE 1.—The patient was a man aged thirty-nine, who was a free liver and a spirit-drinker, with a dyspeptic history of some years. He was a commercial traveller in Eastern climes. I was called to him at 2 A.M. one morning and was told that he was bleeding to death. The hæmorrhage was alarming and recurred again and again; he vomited immense quantities of dark blood, and the usual styptics—ergot, turpentine, acids and opiates—had not the slightest effect. He was simply bleeding to death and after four days was in great danger; the pulse was 120, quick and small at first; the respiration was 30 to the minute, and the breathing shallow and quick; there was marked blanching. A drachm of fresh ipecacuanha was given in the form of a bolus, with the result that the hæmorrhage was absolutely arrested and did not recur. The pulse, after administration of the ipecacuanha, became steadier and slowed to 72. Four months later this patient was pursuing his usual avocation.

CASE 2.—The patient was aged thirty-five, and had been many years resident in Calcutta; his habits were intemperate and he had a history of malarial fever and dysentery of old standing. He was also a sufferer from chronic gastritis. He suddenly vomited several pints of blood. Hepatic dulness extended for two fingers' breadths below the costal arch. Prior to the loss of blood the patient was extremely anæmic and had latterly lost weight. When seen shortly after the hæmorrhage he was deathly pale; the pulse at the wrist was 90 to 100, small, thready, and almost imperceptible. The respiration was 30 to the minute, quick, and very shallow. The surface of the body was cold, the face was pinched, the eyes were dry and sunken, and the vomit, which consisted of pure blood, remained spasmodically as a simple regurgitation. Ipecacuanha was given in precisely the same manner and dose as in Case 1; the hæmorrhage was completely arrested, but death occurred six months later, his health being fair in the interim. The necropsy revealed coronary degeneration and hypertrophic cirrhosis of the liver.

CASE 3.—The patient was a domestic servant, with a history of dyspeptic troubles and pain after food. She suffered from amenorrhœa and had been out of health for one year past, being overworked and indifferently fed. Her family history was good. There was no evidence of structural disease save slight impairment of resonance, and a few moist râles were heard under the right clavicle. The patient was treated for dyspepsia, and three days later she vomited a large quantity of blood. This occurred again and again, though it was temporarily arrested by syncope. The respiration was between 30 and 40; the pulse was 120 and very feeble. She became unconscious and pulseless and was apparently dying. She received the last rites of the Church, but shortly afterwards, on rallying somewhat owing to hypodermically applied stimulant injections, a dose of one drachm of ipecacuanha was administered and retained. A speedy improvement in the pulse and respiration took place. No further hæmorrhage ensued, and the patient slowly progressed to convalescence, but she was fed solely per rectum for six weeks.

Remarks.—I have selected these three cases on account of their exceptional severity. I would emphasise the necessity of keeping the patient motionless with the spine arched forwards by means of hard pillows placed beneath the dorsal column. Nothing whatever should be given by the mouth except the ipecacuanha; this should be fresh, and a few drops of tincture of opium ought to be added to sufficient glycerine to mould the mass into a bolus. Especial care should be taken that no fluid is given either by the mouth or the rectum for at least two hours after the administration of the drugs. The patient's strength should be supported by nutrient peptonised enemata, and stimulants should be taken in the same manner. Brandy given by the mouth is almost invariably rejected and keeps up the vomiting. I am persuaded that in ipecacuanha administered with the precautions I have named there exists a remedy of singular potency in the treatment of hæmatemesis.

Piccadilly, W.

MEDICAL MAGISTRATE.—Dr. H. Pike Major of Hungerford has been placed on the Commission for the County of Berks.

PERSISTENT GAERTNER'S DUCTS TREATED IN ONE CASE BY DIVERSION OF OPENING FROM VAGINA TO BLADDER.

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TWO cases have recently come under my notice, one being certainly, whilst the other was possibly, an example of this rarely recorded condition. The first case was that of an Egyptian fellah woman aged thirty, who from her earliest recollection had been subject to a watery vaginal discharge. At the age of thirteen she married, became pregnant, and was delivered of a healthy child, the discharge continuing during the whole pregnancy. On vaginal examination a very minute orifice, admitting only a cat-gut guide, was found on the vesico-vaginal septum a little to the right of the middle line and half an inch posteriorly to the vesical extremity of the urethra. From this issued, drop by drop, a pellucid fluid, to the amount of about two ounces per diem, having a specific gravity of 1026 and containing much albumen, with some chloride of sodium. Urea and urates were absent. A fine urethral bougie, introduced with great difficulty, passed directly backwards along the vesico-vaginal septum and then, following to all appearance the line of the ureter, penetrated to the whole of its length in the direction of the right kidney. The patient was most anxious to have something done to stop the constant discharge. I found that Mr. Lawson Tait had unsuccessfully attempted the cure of a similar case by extirpating the broad ligament, the want of success being probably due to the fact that the canal passed entirely behind this structure. I decided that in the present case the simplest plan would be not to attempt to close or destroy the canal, but to divert its opening into the bladder so that its contents might flow away unnoticed with the urine. This was easily effected by separating a tongue of tissue composed of the whole thickness of the vesico-vaginal septum and containing the orifice and first inch of the duct, tucking it up into the bladder, and reclosing the vesico-vaginal septum beneath it. Twenty-four hours after this operation was performed the patient complained of severe pain in the right lumbar region; this pain lasted for a few days and required morphia for its relief. It was very probably due to retention of the contents of the canal from a kink at the point where it had been turned up into the bladder. The patient recovered completely and left the hospital free from any vaginal discharge, but with an albuminuria which in the future may greatly trouble some learned physician. I would call special attention to the direction of the duct, to its length, and to the lumbar pain felt after operation. I am inclined to deduce therefrom that the canal passed retro-peritoneally from the vesico-vaginal septum to the kidney region lying in close conjunction with the ureter. Bearing in mind the process of development of the urinary organs, this is just the position one might expect a permanent Gaertner's duct to occupy, and it is evident that the nature of the fluid collected was such as to exclude the idea of the canal being either a supplementary ureter or a ureter with an abnormal opening in a uretero-vaginal fistula.

The second case was that of an Englishwoman who had suffered for many months from recurrent attacks of supposed renal colic. During the intervals between the attacks there was constant albuminuria, microscopical and chemical examinations giving evidence of no other abnormality. The attacks commenced with severe pain and tenderness referred to the right kidney and ureter, with coincident severe febrile and other general symptoms, frequent diminution in the quantity of urine, and during the first part of the attack complete cessation of albuminuria. The attacks were generally accompanied by slight cystitis and were said to terminate with a critical discharge of pus. The diagnosis had been made in London of abscess of the kidney, depending perhaps on stone; and the patient had on one occasion been chloroformed for operation. The signs yielded, however, by palpation under chloroform had been so negative that the operation was deferred. It seems to me that every symptom could be explained by the supposition of a Gaertner's duct, which, perhaps from slight attacks of cystitis, became obstructed from time to time, such obstruction resulting in the formation of pus. The only symptom not so easily explained was the diminution in the quantity of urine, but it is to be noted that this diminution occurred later on during the attack and may have been reflex in origin. In any case I think that the condition which was so evidently the cause of trouble in the first case may be considered as a possibility in the second. The question of permanent Gaertner's ducts is, as I have pointed out on a previous occasion, of importance with reference to albuminuria in otherwise healthy individuals presenting themselves for examination for life assurance.

MASSAGE IN DISEASES OF THE SKIN.

BY A. SYMONS ECCLES, M.B. ABERD., M.R.C.S. ENG. &c.

IN order that a just estimate may be arrived at as to the therapeutic value of massage it is necessary to consider the direct and indirect effects on the healthy skin which can be produced by skilful manipulations. These may be best realised by observations on the local effects produced by different manipulations of the skin only; by noting how far these effects may be modified by deeper manipulations acting not only on the skin but on the underlying tissues also; and by observing the effects produced by massage of one part of the body on the skin of another part—for these indirect effects on tissues remote from the actual site of operations are not the least interesting and useful. The general effects of massage on the nutrition of the body as a whole it is not my purpose to discuss in this paper. They have already been more or less fully considered in previous papers by myself and have been investigated and published by others interested in the subject both before and after the results of my own observations were made public; but their omission here should not be regarded as in any sense implying that general corporeal massage is not of proved value in certain skin diseases, but rather because neither time nor space will allow me to do more than refer to the fact that the skin participates fully in the beneficial effects which may be produced on the general nutrition of the body by systematic skilled massage. The local effects of massage on the skin vary with the character of the manipulation. Light friction produces precisely the same apparent effects as the application of a cold impression to the surface of the skin, with this difference, that whereas the initial effects of cold thermal stimulation and of mechanical friction are the same—viz., contraction of the muscular fibres of the erectores pili and of the cutaneous vessels producing the condition known as goose-skin—if the application of cold is continued the circulation through the cutaneous area so treated is slowed, there is venous congestion, overfilling of the lymphatics and consequent tumefaction of the part; whilst with the continued application of friction the contraction of the cutaneous musculature and of the vessels is replaced by relaxation, pallor is replaced by the warm redness characteristic of more rapid circulation and arterial hyperæmia, and if the vigour of the manipulation be increased to firm rubbing the loose epithelium is removed, the contents of the sebaceous follicles previously compressed during the stage of goose-skin are expelled by the friction of the operator's hand, dilatation of the superficial cutaneous arterioles occurs, and insensible perspiration and sometimes sensible perspiration ensues; whilst, at the same time—the friction being always exercised centripetally—the lymphatic vessels are unloaded and the venous circulation is stimulated. If to the firm friction of the skin the manipulations of rolling and squeezing be added, the superficial tissues being lifted as it were from the subjacent fascia and the whole thickness of the cutis and subcutaneous tissue thoroughly kneaded, the vascularisation of the part is greatly increased whilst at the same time the lymphatic spaces are drained and thus absorption both by lymphatics and bloodvessels is accelerated; but in addition to the noticeable differences in the effects produced on the vascular and lymphatic conditions of the skin by the lighter friction on the one hand and the firm rubbing, rolling and kneading manipulations on the other hand, it is interesting to note the effects on the local temperature. Some years ago I recorded the results of certain observations on the free surface temperature of parts before and after massage; but at that time I had not observed the effects produced by dealing with the skin only as opposed to those resulting after thorough kneading of the deeper-lying tissues also. During the last twelve months, however, I have made certain experimental observations on the different effects produced by employing

respectively superficial manipulations directed to the skin and subcutaneous tissues only which may be classed under the word "shampooing," and deeper manipulations in which the deep fasciæ and muscles of the part have also been kneaded, constituting what I prefer to term "massage" in contradistinction to the word "shampooing"—sometimes erroneously regarded as synonymous with massage. The results of these observations are very meagre in comparison with the work entailed in making them; but, my interest in cutaneous affections and the use of massage therein having been stimulated by the courtesy of friends who have been good enough to give me opportunities of practising massage on patients under their care, and who have also aided me with their skill and advice in other cases which have been under treatment by massage for conditions complicated by skin affections, I have been induced to undertake somewhat laborious investigations, the small results of which are now recorded.

Light friction of a part reduces surface temperature so long as no other effect is produced than cutis anserina. In ten experiments on healthy adults, whose axillary temperature on both sides was equal and whose free surface temperature on the extensor surface of both forearms was before massage 88° F. or more, and (as taken by Immisch's surface thermometer after ten minutes' exposure to the surrounding air) showed no signs of falling, it was found, on subjecting the left forearm to gentle upward friction, that, whilst the temperature in both axillæ and in the untouched free surface of the opposite limb remained constant, the temperature of the left forearm extensor surface fell in all cases more than two degrees, and in three cases nearly four degrees. After firm friction, rolling, squeezing and kneading of the skin of the limb in all cases the free cutaneous temperature rose to 95°; but the axillary temperature remained the same on both sides, whilst in seven cases an interesting phenomenon was noticed on the opposite side—viz., the right limb sensibly perspired and the free surface temperature of the untouched forearm fell to 84° during the time that the firm friction of the left limb was in progress. In three of these cases massage of the whole limb was superadded to the shampooing of the skin, the muscles were thoroughly kneaded and rolled and subsequently backed, after which centripetal upward friction of the whole surface of the limb was practised, as is my custom, at the close of massage. After ten minutes of such a series of manipulations in each case the left axillary temperature had risen more than one degree and the free surface temperature had risen to 98°—i.e., to within four or five decimal points of the initial axillary temperature on the same side. Meanwhile the free surface temperature of the opposite limb in all three cases ceased to fall, and in one case it certainly rose from 84° to 86° during the thorough massage of the whole limb. In testing the effects of massage on the cutaneous nerves it is necessary to distinguish between the immediate effects produced by each form of manipulation and the results produced on cutaneous sensation by massage of a part repeated daily. In regard to light friction, it has been impossible to detect any effect on the sense of locality or on the temperature sense. After firm friction of a part for five minutes æsthesiometry reveals decided increase of tactile sensibility, and in the case of the limbs in their transverse axis the sense of locality has, in most instances, been apparently improved. Thus in the thigh on the inner surface before massage the æsthesiometer revealed 36 mm. as the nearest distinguishable points in the transverse axis of the limb, whilst after firm upward friction the two points were distinguished at 31 mm. distance apart. After kneading and rolling the skin the points were actually not felt as two under four centimetres apart, whilst after kneading and hacking of the muscles the cutaneous sensation was so benumbed that the subject failed to recognise the contact of the instrument at all. Similarly the temperature sense for heat was almost entirely lost and barely distinguishable for cold—indeed, the subject merely felt the contact of the ice tube and could not tell whether it was hot or cold after thorough massage, though after mere skin friction the ice tube was immediately and painfully recognisable, whilst the hot-water tube was distinguished as hot, but there was no flinching from the heat as on the opposite untouched limb. The results of thorough daily massage of the same limb for a week were more particularly remarkable in regard to local sense and tactile sense. The two points were distinguishable on the sixth day after massage at 34 mm. apart in the transverse axis of the limb over the whole of the adductor region. The cremasteric reflex was very readily produced on slight pressure with the points and sharply succeeded the application of the cold test-tube. On the eighth day æsthesiometry showed the points easily distinguishable on the inner surface of the thigh at 32 mm., on the outer surface of the leg at 30 mm., instead of 35 mm. as noted on the first day. The temperature sense for both heat and cold was more acute than on the limb of the opposite side in so far that the patient more readily distinguished iced, cold, warm and hot water tubes.

Perhaps one of the most interesting effects of massage to dermatologists will be the influence which it has been repeatedly observed to exercise on galvanic conduction. This I have already noted in more than one of my previous papers; but in view of the possible value which may arise from the employment of the cataphoric action of the constant current in the treatment of skin diseases it may not be out of place to refer again briefly to the indisputable fact that massage greatly decreases the resistance of the uninjured skin to the passage of electrical currents. I have repeatedly observed that previous massage of a part will economise the number of cells necessary in order to pass a given number of milliampères of current through the skin, and that whilst the same current may be maintained during the application the number of cells in action may be more rapidly reduced than is possible when massage has not previously been employed. I venture to suggest that if it is desired to use the alternating constant current for the purpose of percutaneous medication by saturating the electrodes with a watery solution of the substance selected for use, the preliminary application of massage may most probably be found to increase the rapidity with which the drug will be absorbed, just as it undoubtedly reduces the resistance of the tissues to the passage of the electric current. Absorption through the uninjured skin appears to remain a vexed question so far as solids and watery solutions or fatty medications are concerned, but in regard to watery solutions the presence of the fatty matters normally present on the epidermis derived from the sebaceous glands seems to afford the greatest protection against the penetration of such aqueous medications as might perhaps otherwise be utilised. It is interesting to note that for a short time after dry massage the oiliness of the epidermis is decreased, whilst the contents of the glands have been mechanically squeezed out. I firmly believe that the application of finely divided powders to the skin after massage will be found to be more efficacious than the inunction of ointments without massage in such cases as those in which the dermatologist may wish his medication to reach the deeper layers of the skin. Clinically, I believe that I have been able to satisfy myself on this point; but experimentally, I understand, it still remains a subject of controversy whether percutaneous absorption of the large majority of local medicaments takes place or not. It is an investigation which seems to be worthy of careful observation, and I trust that evidence on this subject will shortly be sought and found.

I have devoted the major portion of this paper to the result of personal observations of the effects of massage on the skin in the hope that they may not be entirely without use as an indication of the possible therapeutic value of massage in skin affections, which belongs more particularly to the province of dermatology, and which can only be profitably discussed by those who are specially engaged in the study and treatment of cutaneous diseases; but I would venture very briefly to notice the class of cases in which I have myself observed undoubtedly good results to follow the administration of massage, employed either at the instigation, or with the sanction, of authorities on pathological conditions of the skin. The best results following the use of massage in skin diseases have been those obtained in cases which may more correctly be regarded as belonging to a wider field than that which is, strictly speaking, occupied by dermatology, though, the manifestations, being largely marked by interference with cutaneous nutrition, fall most naturally within the limits of skin affections. Enfeebled and sluggish circulation resulting in impaired vascularisation of the skin, with the consequent peripheral ischæmia, cyanosis or chilblains arising therefrom, and conditions apparently closely allied to Raynaud's disease, are unquestionably greatly modified by a systematic course of massage, which not only proves a valuable adjunct to the general hygienic measures appropriate to such cases, but also acts as a prophylactic against the recurrence of the more painful sequelæ of defective peripheral circulation. It is not possible within the limits of this paper to discuss the precautions necessary to ensure the success of the mechanical stimulation of cutaneous circulation; but unless the pheno-

mena of skin radiation, heat abstraction and surface temperature generally are borne in mind, massage in such cases as result from the constriction or emptiness of the cutaneous vessels will not prove by any means beneficial. The careful administration of massage will prove far more valuable than the application of electricity in what has been termed "chilblain circulation," because no evaporation, and thus no heat abstraction, will follow its properly regulated use, as must be the case when moistened electrodes are applied to the cold, blue or mottled surface of the skin in this condition.

But massage is not only useful when applied directly to the part affected, for it may be employed as a mechanical stimulant over the vaso-motor centres controlling the vascular conditions of such a part. Friction and kneading over the cervical and dorso-lumbar regions of the spine, with firm kneading especially directed along the erector spinæ, appear to affect inflammatory lesions of the skin of the upper and lower extremities respectively, whilst abdominal kneading certainly reduces the tension in the bloodvessels of the extremities, as I have described in a previous paper.[1] The value of massage in altered cutaneous sensation without any visible lesion has proved uncertain so far as my small experience goes. In some cases of pruritus it has proved apparently curative, whilst in others no good result has been obtained, but in cutaneous conditions depending on neuritis or perineuritis the effects have been very satisfactory—for example, herpes zoster has been aborted, and, as I have been able to prove in a large number of cases of sciatica, the anæsthesia and hyperæsthesia of the skin due to this malady have yielded to local massage. It is, however, in the lesions of the skin characterised by the accumulation of inflammatory products, by the overloading of lymphatic spaces, the clogging of the lymph channels and blocking of lymph glands that massage may certainly be regarded as unquestionably useful, and provided that the same precautions are adopted in the employment of this form of local treatment as are carried out by most, if not all, dermatologists in testing remedies over a small area at first, the results, even in severe cases of chronic dermatitis, will prove satisfactory. One very inveterate case in which the pustular dermatitis was universal and the lymphatic glands, especially the femoral, were greatly enlarged, indurated and matted together has certainly improved, at any rate temporarily, after each course of massage which I have administered myself at the request of Mr. Malcolm Morris. The scleroderma was diminished, the lymphatic glands became smaller and discrete, and, I believe, at the risk of posing as an enthusiast for massage, that if the patient could have persevered with the mechanical treatment under conditions of equable surface temperature, permanent benefit might have been derived from the other remedies which Mr. Morris was employing at the time. In psoriasis I have been able to prove the distinct beneficial effects of a prolonged course of massage, and the value of the local treatment has been tested in chronic cases of psoriasis universalis when no other treatment, external or internal, has been employed. In order to recognise whether or not the mechano-therapy could be accredited with the involution of the disease, I have selected in different cases some portion of the body—a limb, or one side of the back, or the abdomen—on which to test the effect of local massage in psoriasis universalis, and have invariably found that, whilst on the untouched parts of the body the disease might be spreading both by the enlargement and coalescence of existing patches as well as by the appearance of fresh spots, on the area of skin subjected to massage the centre of the patches commenced to fade, and the rings became narrower and less marked by redness and scaliness, until finally they broke and disappeared. Moreover, in those cases wherein the patient was distressed by the painful irritation and burning itching which are frequent subjective symptoms of psoriasis, the effect of massage has been to reduce the irritation and to allay the discomfort which in some cases produces serious insomnia.

It must be conceded, in advocating the more extended use of massage as an adjunct to the treatment of skin diseases, that in the majority of cases in which I have observed its value it has been combined with rest and careful dieting, the patient having been under my care for other concomitant conditions of ill-health, some of them, if not all, suffering from disorders of digestion, so that I have been disposed to associate the skin affection with the dyspepsia; but, whereas the latter has been permanently cured, the former has recurred, though in only one case as yet with its pristine force and severity. The cases in which I have myself administered massage in skin affections comprise examples of various forms of vaso-motor enfeeblement, tropho-neuroses—e.g., anhydrosis, pruritus and alopecia universalis (in one case followed by the growth of lanugo over the whole body and on certain portions of the scalp previously denuded)—psoriasis, dermatitis with scleroderma, acne and comedones. In the cases of alopecia, sluggish circulation, acne and comedones dry massage has been employed. In dermatitis and psoriasis the lubricant which I prefer to any other is clarified neatsfoot oil. The advantages it possesses over other fatty or oleaginous applications are briefly these: a small quantity only is needed, as a few drops poured into the palm of the hand are sufficient to remove the scales, to prevent dragging or irritation of the patient's skin, and to thoroughly disappear from the surface both of the rubber's hands and the patient's body, so that in the latter case no unpleasant stickiness and no heat abstraction from the surface remain to add to the discomfort of the sufferer, whilst at the same time the skin is sufficiently impregnated with oil to render it tenacious of any dusting-powder which may be applied after the massage. My ignorance of the methods in vogue amongst modern dermatologists must be my excuse for suggesting a therapeutic plan which may be already familiar to all; but I cannot help thinking, as the result of personal experience, that carefully regulated, skilful massage followed by appropriate remedies in the form of a powder dusted from a dredger on to the skin would be an improvement in many cases on the use of ointments. In one of the latest works on skin diseases I notice that the writer declares that "half the battle depends on the thoroughness with which the preliminary and curative agents are rubbed in." I would go further and say that the other half of the battle would be in favour of the therapeutist if he would adopt preliminary measures to promote absorption, not only by the skin, but from it, before applying the special local medication. The value of all the much vaunted ointments, embrocations &c. depends almost, if not entirely, on the inducement they offer to practise rubbing in cases of non-parasitic skin diseases. In a recent text-book on diseases of the skin massage is referred to in five lines, two of which are devoted to the statement that "it has been quacked as usual, having been put forward as a preventive of wrinkles of the face." So far as I can tell, the writer has not referred to the quacking of other remedies—e.g., arsenic—in skin diseases, though I should imagine that its abuse by ignorant persons amounted to quackery. Of course every remedy, rendered fashionable by its successful application by scientific practitioners, will be vaunted by persons unqualified to administer it; but in the matter of wrinkles and massage I can vouch for the obliteration of facial wrinkles, not indeed as the result of local massage in aid of senile vanity, but following on the re-deposition of fat and the better nutrition of the skin after a course of general massage in many cases of malnutrition, in which the skin of the face has participated in the general increase of the tissues. Face massage alone is quackery in regard to wrinkles. General massage is useful for their obliteration, always providing that the processes of senile decay are not prohibitive of any improvement in general nutrition.

Hertford-street, Mayfair.

[1] Brit. Med. Jour., Dec. 1st, 1888: The Internal and External Temperature of the Human Body as modified by Muscle Kneading.

THE COMPLETE WASHING-OUT OF THE INTESTINAL TRACT AS A TREATMENT FOR CHOLERA AND ALLIED CONDITIONS.

BY PROFESSOR ANTON VON GENERSICH.

DURING my study of the mechanism and capacity of the intestinal canal, undertaken for the purposes of a book I am shortly about to issue, I verified by experiment the possibility of a complete irrigation of the tract, and I consider that this operation may be of so high a practical importance to the profession that it ought not to be withheld to await the publication of the larger work. It is found that, if in the dead subject any kind of fluid is introduced through an irrigator into the upper end of the œsophagus, some three, four or possibly five litres will pass freely into the stomach and small intestines, but that pressure, even up to a point that causes rupture of the canal, will not compel any more fluid to enter. (This result is almost

invariable in the adult corpse, although with children it does not hold good.) If an attempt, however, be made to pass the fluid upwards from the rectum, it will be found that the universally accepted action of the ileo-cæcal valve does not occur, and that with a moderate pressure the fluid can be expelled from the mouth, having in its passage washed out the entire tract The capacity of the intestinal canal, as I shall shortly show by the researches into the subject that I propose to publish, varies greatly in individuals, but for a full-grown man the average is as follows: the large intestine will hold three litres, the small intestine about the same quantity, and the stomach and œsophagus about two litres, making the average total capacity about eight or nine litres; so that when nine litres of fluid have been admitted to the rectum through the irrigator the fluid begins to run out at the mouth. This process, which I propose to term "diaclysmos" (διακλύζειν), can be accomplished upon the living subject with care, and without any great difficulty or danger, and the question that I wish to bring forward is how far treatment in this manner of maladies depending upon the presence of a poison in the intestine may be feasible. Irrespective of the view which may be taken with regard to the true origin of cholera, it is pretty generally admitted that the poison enters the system by the intestinal canal and is diffused thence; and there is no doubt that the *materies peccans* has not as yet been favourably influenced by any remedy introduced by the mouth. Under these circumstances it has seemed to me that it would be a proper proceeding to try the effect of complete irrigation of the intestinal canal from below upwards in certain cases of cholera, and the few experiments which I have made, in conjunction with Drs. Meizner, jun., and Erdödi, and M. Urbanetz, at the local fever hospitals have yielded good results. I say certain cases, for in the selection of the proper cases care will have to be displayed. Although no force is used, the remedy is an unpleasant one and not unattended by shock, so that it is not suitable for advanced cases or for the subjects of cardiac or pulmonary disease or arterial degeneration. Manifestly, also, the victims of obstructive growths or malignant or tuberculous stricture cannot be treated in this manner. In the cases alluded to, a solution of from 1 to 2 per cent. of tannin water at from 37° to 38° C. was gently driven into the rectum, the anus being held tightly round the tube of the irrigator. As the abdomen became swollen and tense, and also on account of the extreme discomfort of the patient, it became necessary now and again to cease injecting, but when six or seven litres had been taken in, vomiting occurred with much relief of the abdominal discomfort, and in this way as much as ten litres would be passed from the anus to the mouth. On the removal of the tube the fluid flowed out at the lower end, but about two or three litres remained in the intestines. No remedy that I have tried has resulted in such marked apparent improvement; for the patient, cold and collapsed before the operation, grows warmer during the injection and is left with a stronger pulse and all the general appearance of being better. The process may be repeated twice, thrice or more often. I do not lay any particular stress upon the use of a solution of tannin, and am of opinion that any non-poisonous saline solution would possibly yield as good results, but tannin is undoubtedly a harmless agent and both antiseptic and styptic.

I do not claim for this treatment that it will prevent mortality from cholera, particularly as it is clear that in many instances there will be circumstances precluding its use; but I believe that in many cases, both of cholera and of other forms of intestinal poisoning, the process may prove to be of service, and I hope that those of my colleagues who are in a position to make more extensive experiments will consider that irrigation is worthy of trial.

THE WATER OF SUBURBAN WELLS.—A case was heard at the South-Western Police-court on Wednesday, Oct. 4th, in which the owner of a well at Lillie-road, Clapham-common, was summoned to show cause why it should not be permanently closed. The summons was supported by a representative of the Board of Works for the Wandsworth district. Mr. Haden Corser having asked that proof of the complaint might be forthcoming, Dr. Muter, the public analyst, and Dr. Field, the medical officer of health, gave evidence to show that organic matter was present in the water of the well, and was, therefore, on that and other accounts, unfit for human consumption. The magistrate accordingly gave an order for the closing of the well.

Clinical Notes:

MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

SYPHILITIC REINFECTION.

BY CAMPBELL WILLIAMS, F.R.C.S. ENG.

NUMEROUS writers have drawn attention to the phenomenon of syphilitic reinfection. In some of the recorded cases the evidence of the first attack rests on the statement of the patient, as in the case of C——, who described most graphically an attack which he experienced fifteen years before in South America He was seen by myself and Dr. C. Couper Cripps, and had an indurated sore and the usual sequelæ. He went to America and was lost sight of. Some of the examples cited are simply consequences of the old disease—namely, gumma of the penis. My case is briefly as follows:—

The patient contracted syphilis in November, 1884, and was sent to me by Dr. F. Sherman Toogood in January, 1885. He had a well-marked indurated chancre of the penis situated on the inner surface of the prepuce and to the right. The glands in both inguinal regions were indurated. He had a very slight roseolar eruption on the abdomen. His chief trouble was in his throat; he had mucous patches on the fauces and his tonsils were ulcerated, but the attack was mild. I treated him with mercurial pills for fifteen months. He soon improved under this treatment, all his symptoms disappearing quickly. At the end of 1886, as a prophylactic measure, he took pills intermittently for two months. He remained well until Aug. 11th, 1892, when he noticed a sore on his penis. His last coitus was on July 17th—i.e., incubation was twenty-five days. On Aug. 21st he consulted me and I found a well-marked indurated chancre situated on the upper surface of the furrow behind the glans towards the left side and on the reflected prepuce. The glands in the groins were very slightly enlarged and the dorsal lymphatics of the penis seemed to be normal in size. He was placed on tannate of mercury pills (one grain and a half three times a day) and the sore was dressed with lead lotion. He again quickly improved under treatment and the chancre was healed by Sept. 16th, leaving a large cartilaginous scar. No rash was noticed about the body, but in October he had mucous patches upon the tongue and the pillars of his fauces. In March, 1893, the tonsils were ulcerated and a mucous patch appeared on the lower lip. In May the scar of the sore had become quite supple and he had no visible signs of syphilis. He is still under treatment.

It will be noticed in this case that the period from the commencement of the first attack to the second one was seven years and three-quarters. All induration has disappeared from the site of the first lesion and nothing can be felt. The point of inoculation differed in the two infections. His first attack was mild. Nothing untoward has happened so far in the second. There has been no eluding of the secondary stage with direct advance to the later form of the disease. He remains amenable to treatment. Cases[1] of this nature serve to refute the doctrine that syphilis is incurable. I see no reason why syphilis should not occur a second time, seeing that second attacks of acute specific diseases are common. Hutchinson relates an instance of a patient having syphilis twice in three years and two attacks of variola in four years. Gascoyne enumerates no less than seven cases of reinfection, which he treated on both occasions. Berkeley Hill had two cases to my own knowledge in which he treated the patient for a second attack. To further examples the writings of Lee, Hutchinson, Coulson, Didny, Rodet, Caspary and numerous others bear testimony.

Welbeck-street, W.

IMPACTION OF GALL-STONE IN THE SMALL INTESTINE.

BY MALCOLM L. MARGRAVE, L.R.C.P LOND., M.R.C.S. ENG.

A WOMAN aged sixty had had for two years increasing difficulty in obtaining relief from the bowels. Six months previously she had had an attack of jaundice, which was

[1] Gowers' Lettsomian Lectures, 1889.

followed in June by rapid loss of flesh and obscure abdominal pains after taking food. Following this she suffered from several "attacks of inflammation of the bowels," lasting for a few days, during which she had complete constipation, much colic and bilious vomiting; but in each instance the bowels were opened and she became comparatively well. In the intervals she noticed increasing pain after taking food, and when she came under observation she had restricted her diet to milk and prepared food. She looked ill and emaciated and complained of diarrhœa, which had commenced three days previously. On examination the abdominal walls were found to be baggy, and there was no marked distension of the abdomen. There was pain with tenderness all over the abdomen, aggravated by pressure, this appearing to be intensified a little above and to the right of the umbilicus, with a sense of resistance. There was nothing palpable and there was no dulness on percussion. The stomach was dilated. The liver and spleen were not palpable and nothing abnormal was felt per rectum. She had a loud systolic aortic murmur, with a small pulse, which was occasionally intermittent. The temperature was 97° F. During the next two days the diarrhœa and colic, after slight improvement, became worse than ever; vomiting began, and it very soon became fæcal. Thinking from her rapid emaciation and history that there might be some abdominal growth narrowing the gut from without, and that probably scybala partially obstructed the lumen of the bowels, I gave a large soap-and-water enema with a little turpentine; this she at once returned, with the immediate effect of relieving the abdominal symptoms. She slept for an hour, only to wake up with an aggravation of her symptoms. She passed several bloody and foul-smelling motions, and vomited incessantly until death occurred on the fifth day from exhaustion, her condition not justifying an operation.

Necropsy.—The abdomen was flaccid; there was a fair amount of fat in the abdominal walls and omentum. The latter was adherent in many places to the intestines, and there were old adhesions in the neighbourhood of the ileum and cæcum. The small intestine was matted together with recent peritonitis; on separation a hard mass was felt a foot above the ileo-cæcal valve, which could be moved upwards, but on pressing downwards towards the ileo-cæcal valve it became firmly impacted. For a foot above the obstruction the intestine was very much more ecchymosed, and a perforation which would admit a goosequill was found, the floor of which was formed by the neighbouring intestine, to which the edges of the perforation were glued, thus completely preventing the escape of fæces into the peritoneal cavity. Below the obstruction the bowel was everywhere collapsed, and the mucous membrane and peritoneal surfaces were intensely injected. The gall-bladder was much shrunken, and could hardly be recognised. The liver was a typically nutmeg one. The kidneys and spleen were normal. The stomach was dilated and contained foul-smelling fluid. The aortic valves were atheromatous. The mass was irregular on the surface, of the size of a bantam's egg, and much resembled one in shape. It was greenish-black in colour, concentrically laminated, and showed well the glistening crystals of cholesterin. It was dry and friable and could be readily crushed with the knife.

Remarks.—It seemed that the increased peristalsis set up by the enema forced the stone towards the ileo-cæcal valve and converted a partial into a complete obstruction, the bloody motions resulting from the further efforts of the bowel to get rid of the stone.

Devon-square, Newton Abbot.

CEREBRAL GLIOMA OCCURRING IN A PATIENT WHO HAD SUFFERED FROM FRACTURE OF THE SKULL THIRTEEN YEARS PREVIOUSLY.

BY R. MUZIO WILLIAMS, M.D. LOND., M.R.C.S. ENG. &c.

As the following case of cerebral glioma presents many points out of the common I venture to give a brief *résumé* of the history and the results of the necropsy.

An unmarried woman aged thirty-two was seen by me on March 18th and gave the following account of herself. She had enjoyed good health until the age of seventeen, when, whilst walking along a parapet, she fell a distance of fifteen feet, through the roof of a greenhouse, on to a stone floor. She remained unconscious for five hours afterwards, and suffered from considerable hæmorrhage from both ears. It was three weeks before she was about again. Since that time until ten months before I first saw her she had enjoyed very good health, with the exception of attacks of neuralgia, to which malady several of her brothers and sisters were subject. She had always been noted for her activity in out-door games and for her brightness of intellect. During the previous ten months she had complained of not feeling inclined to take exercise, and during the previous three weeks she had frequently stayed in bed on account of very great pain at the top and back of her head and neck; the pain was of a shooting, though sometimes of a throbbing, character. At times she had felt faint, but she had never lost consciousness. She also said she had suffered greatly from indigestion. She was well nourished and appeared to be in almost perfect health. There was no tender spot on pressure over the scalp. The pupils were equal and there was no motor paralysis of the ocular muscles or elsewhere; the sight was said to be very good, but unfortunately the discs were not examined. There was no affection of sensation or of the senses of smell and taste; vomiting had occurred only twice. No conjugate deviation of the head and eyes was present. The lungs and heart were normal; the pulse was 56. The stomach was tympanitic and distended, and the patient could not wear corsets. During the following twelve days her dyspepsia and general health improved and she was able to go out in a Bath chair occasionally, but she still complained of pain and of feeling faint at times. On the night of the 30th the pain became very severe and she slept but little. The next morning she became violent and destructive, and about mid-day she was faint and began to lose consciousness. On my arrival the pulse was barely perceptible and irregular. There was complete unconsciousness. After about an hour she rallied for a time, slightly recovering consciousness, and her pulse improved; but a relapse soon took place, and she died about five hours after the first onset of the syncopal attack.

A necropsy was made sixteen hours after death by Mr. H. E. Friend (who had kindly seen the patient shortly before her death) and myself. There were signs of old fracture of both middle fossæ. The dura mater and arachnoid were healthy, but the pia mater appeared to be cloudy, as if infiltrated with inflammatory exudation, this condition extending over to the left side beneath the falx cerebri. On the removal of the membranes an oblong tumour was to be seen, being about an inch and a half long by an inch and a quarter broad. This tumour involved the anterior portion of the right superior frontal convolution. It was exceedingly soft in the centre, but was more vascular and of firmer consistence at its circumference. A section of the tumour was subsequently examined by my friend Mr. Shattock, and he found it to be of the nature of a glioma.

Remarks.—It would be interesting to know whether gliomata have been observed by others to follow severe cranial injuries in such a proportion as would incline the observer to think that some causal relationship existed between gliomata and previous injuries. Sarcomata are considered sometimes to follow traumatism, and are probably caused by an excess of cell activity during the process of reorganisation and reparation, so that it is not extravagant to suppose that a condition may have arisen here such as would cause the formation of a connective-tissue growth closely allied to the sarcomata. If such were the fact in this case, the long interval of time between the injury and death was certainly remarkable. The tumour existed at the spot where some cerebral hæmorrhage was most likely to have taken place from *contrecoup* at the time of the injury. It is also interesting to note that the situation of the tumour was such that no motor paralysis or affections of the special senses would be expected. As syncopal attacks were the main features of this case it is worthy of consideration whether there is any functional relationship between the part of the brain affected and the heart.

St. Mark's-road, North Kensington, W.

POLY-ARTICULAR RHEUMATOID ARTHRITIS IN A CHILD SIX YEARS OLD.

BY H. LLOYD-DAVIES, M.B., C.M. EDIN.,
HOUSE SURGEON TO THE DEVONSHIRE HOSPITAL, BUXTON.

A GIRL aged six years was admitted into the Devonshire Hospital, Buxton, on May 14th last. There was no family history of gout or rheumatic disease, but a grandfather had

died of phthisis. The patient had measles when four years old. Twelve months subsequently she had an attack of acute rheumatism, from which she recovered, and was able to attend school for nine weeks, when swelling appeared in the joints, accompanied by pain, commencing, the mother thought, in the feet. The disease had gradually progressed since. When admitted to hospital the child, who was very intelligent, was found to be ill-nourished and very anæmic. She could use the upper extremities fairly well, but was quite unable to walk or stand. The state of the joints was as follows. The phalangeal joints presented fusiform enlargement; movement was pretty free, but slight grating could be felt in some of them; the metacarpo-phalangeal joints were also swollen. The wrists were enlarged, especially on the dorsal surface, and contained fluid; passive movement caused pain and grating could be felt. The right elbow was enlarged and painful, movement of the joint was limited, and extension to an angle of about 135° only could be obtained. The left elbow was also affected but there was little interference with the movement of the joint. The knees were much swollen and there was fluctuation; passive movement caused pain, and grating could be elicited; extension of these joints was also limited to an angle of about 135°. The ankles were also affected. The shoulders, hips and other joints, including the temporo-maxillary articulation, were normal and no pain was complained of in the back of the neck. A soft systolic murmur was audible in the aortic area; the pulse was 130. The reflexes were not exaggerated. There was nothing abnormal in the urine and the organs were otherwise healthy. The treatment adopted was the administration of cod-liver oil and chemical food internally, combined with good nourishment, inunction of cod-liver oil, massage and passive movement of the joints, in addition to the use of the Buxton thermal waters. The patient remained in hospital for nine weeks, at the end of which time there was marked improvement in her condition. The swelling in the joints had much diminished and very little pain was complained of. The knees could without much difficulty be fully extended and the right elbow nearly so. Though still unable to walk she could stand with the support of a table or chair. The general health of the patient had much improved and her weight had increased from 30½ lb. to 37½ lb. The case is a good example of the disease in its comparatively early stages, with the presence of synovial swelling and fluid in the joints, but without bony enlargement. I venture to record it on account of the age of the patient, the disease being rarely seen in one so young. Of 307 cases under treatment in this hospital during the year 1892 only 2 per cent. contracted the affection before the age of ten. One case was admitted, a child of ten years of age, in whom the disease was said to have started at the age of two years. Though in such a case as the one recorded a cure cannot be looked for, I think the result obtained illustrates the amount of good that can be done by careful treatment. The case was under the care of Mr. Arthur Shipton, to whom I am indebted for permission to report it.

CHOLESTEATOMA OF THE AUDITORY CANAL CAUSED BY A BUG.

BY R. E. SCHOLEFIELD, M.A., M.B. OXON.

THE following case may be of interest, as it seems to be unique:—

A boy ten years of age was convalescent from scarlet fever and almost free from desquamation when my attention was called to him in consequence of his complaint of pain in the left ear, which kept him awake at nights. A note had already been made of "much wax," and syringing of the ear had been ordered, so that on examination the canal was clean. With the speculum, and indeed without its aid, a shining white pearl-like mass, with a perfectly smooth surface, was seen to completely fill the canal almost to its external orifice. On examination with a probe it was found to be of wax-like consistence and broke down into friable flakes. A portion was removed with a Toynbee's forceps and a brown object was seen in its centre. Syringing with warm water was next employed and the rest of the tumour was washed out, and with it a small specimen of *cimex lectuarius*, which corresponded with the brown object seen, and in fact with the brown stained impression on the remaining portion of the tumour, which came away almost entire. The canal then seemed to be free, though the inner surface was white and of a macerated appearance. The boy had no further pain and was discharged a day or two later. The white material of which the tumour was composed seemed to be of cholesteatomatous nature, breaking up easily into white pearly flakes of a waxy consistence. These were some time in alcohol before I had an opportunity of examining them microscopically, and then they were seen to be composed chiefly of fat and epithelium. No cholesterin was obtained on extracting with hot alcohol or chloroform; the flakes, however, after being freed from fat by chloroform and xylol, were found to consist of thin laminæ of flat pavement hexagonal cells, staining very badly with hæmatoxylin. In many places they formed cell-nests like the pearls of an epithelioma, but on the whole the structure reminded one more of vegetable than of normal animal tissue.

These characteristics are, I think, taken together with the situation of the tumour, sufficient to indicate that the latter was a cholesteatoma, even in the absence of cholesterin. It remains, however, to account for the presence of the insect in its interior; and this, I think, can only be done by imagining that the tumour had been formed round it, either dead or alive, perhaps in consequence of the irritation set up by the presence of so unwelcome a visitor.

St. Ann's road, N.

RUPTURE OF THE FRÆNUM PREPUTII; SEVERE HÆMORRHAGE.

BY ROBERT J. CARTER, M.B.LOND., D.P.H.ENG.

A MAN aged twenty-seven consulted me quite recently, complaining of bleeding from the penis. He stated that on the previous night he had coitus with his wife and immediately afterwards fell asleep. When he awoke at 7 A.M. the bedding was saturated with blood and blood-clots were lodged between his legs. He applied cold water bandages to his penis, and notwithstanding a feeling of faintness and nausea he dressed and attended to his business during the morning, but finding that the hæmorrhage still continued he came to me at 1.30 P.M. The patient was a tall, healthy looking man, excessively blanched from loss of blood, hardly able to walk and obviously on the verge of fainting. His clothes were saturated with blood from his waist down to his boots, one of which, the left, contained some ounces of blood. On examination the prepuce was found to be swollen, and œdematous, and blood was slowly oozing from its orifice. It was retracted with difficulty and the frænum was found to be completely ruptured, the artery to the frænum being torn across; it was bleeding from both distal and proximal ends. These were readily seized with catch forceps and tied with chromicised gut. It was found necessary to keep him in bed for three days, when he was sufficiently recovered to be circumcised. This accident, which is by no means uncommon, is not generally accompanied by such severe hæmorrhage, the mucous membrane alone giving way without rupture of the artery, its frequency being well demonstrated by the numerous cases of chancre seen on its site, whilst the possibility of its occurrence is another argument, if one were needed, in favour of early circumcision in cases of congenital phimosis.

Acacia road, N.W.

CLOSING OF DILAPIDATED HOUSES.—On Wednesday, Oct. 4th, on the application of Mr. W. W. Young, representing the Board of Works for the Wandsworth district, the magistrate presiding at the South-Western Police-court gave an order for the closing of ten houses known as Tyler's-cottages, Clapham, the same being adjudged unfit for human habitation.

THE ROYAL FREE HOSPITAL.—The President of this hospital has issued an appeal to the friends of the institution with the object of securing, if possible, the funds needed to enable the committee to carry through the work of completing the hospital buildings. For this purpose the sum of £20,000 is required, of which amount £8000 has already been raised. It is the intention of the committee to provide isolation wards, casualty rooms, and a dispensary; also a steam laundry, the want of which has been much felt. As the Royal Free was the first hospital in London to open its doors to the sick and suffering poor without, the applicants being provided with letters of recommendation, it is hoped that the appeal will meet with a ready and hearty response.

A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

ST. THOMAS'S HOSPITAL.

TWO CASES OF SUBPERITONEAL LIPOMA SIMULATING HERNIA.

(Under the care of Mr. WILLIAM ANDERSON.)

MOST surgeons have met with examples of this condition—lipoma of the groin, simulating hernia of the omentum—and have experienced some difficulty in making a diagnosis. Occasionally this difficulty has been much increased by the presence of a hernia behind the lipoma, and the diagnosis has only been established at an operation undertaken to relieve serious symptoms due to the hernia or for the purpose of effecting a radical cure. The necessity for the latter operation has been sometimes occasioned by the lipoma, which has prevented the efficient application of a truss. A curious, but unexplained, circumstance is that these tumours have been more frequently met with in the left spermatic cord. We have not space to enter fully into the literature of the subject; much information may be obtained from the references given in the footnote.[1] With regard to Mr. Anderson's allusion to recurrence after removal in these cases, we may mention the case of a patient, under the care of Mr. Curling, who had a fatty tumour of the groin excised five times in twenty-four years from his left spermatic cord; it used to become tense and painful before each evacuation of the bowels and returned afterwards to its former state.

CASE 1 (from notes by Messrs. H. Wadd and L. Wallace).—A man aged twenty-two years was admitted to St. Thomas's Hospital on Jan. 3rd, 1892, for a contusion of the abdomen. He was of good physical development and had been in the habit of consuming a considerable quantity of alcohol daily, but said that he never drank to intoxication. For ten or twelve days after admission he suffered from repeated vomiting and a degree of prostration that seemed to be altogether disproportionate to the severity of the local injury, but these may have been the outcome of alcoholic saturation. From these, however, he gradually recovered, and attention was then directed to two hernia-like protrusions, one on each side, in the inguinal region. The tumours had appeared without apparent cause about a year before and had been diagnosed and treated as "ruptures." Both were soft, inelastic, and free from pain and tenderness. That on the right side was the larger and extended from a little above the testicle upwards into the inguinal canal. It was smooth, pear-shaped, with the large end in the scrotum, freely movable within certain limits and could not be reduced into the abdominal cavity by taxis. The tumour on the left side was of similar character, but projected only about an inch below the external inguinal ring, and could be pushed back into the canal by manipulation. There was slight impulse on coughing on both sides and the inguinal canals were sufficiently dilated to admit the end of the finger. The nature of the condition was somewhat obscure. In form and general character the tumour bore considerable resemblance to an omental hernia; but the irreducibility of the tumour on the right side and the indistinctness of the impulse on coughing rendered the diagnosis doubtful. The patient was advised to undergo an operation. On Feb. 2nd an incision was made on the right side in the usual situation for herniotomy and division of the coverings of the cord exposed an ovoid mass of soft yellow fat in immediate contact with the spermatic vessels. This was easily isolated below; but when traced up through the inguinal canal to the internal ring it was found to be continuous with the subperitoneal tissue. It was dissected away as high as possible and search was made for a peritoneal prolongation, but without success. A like operation was then performed on the left side with similar results. The wounds were closed and dressed antiseptically. Two days later it was necessary to remove the dressings in consequence of indications of local inflammation, and it was found that in spite of antiseptic precautions both wounds had suppurated. The patient eventually made a good recovery and was discharged with sound cicatrices on March 8th.

On Nov. 14th he returned in a condition almost identical with that noticed on his first admission. He said that the tumours commenced to reappear two months after he had left the hospital, and since August he had been wearing a double truss, but without a satisfactory result. The operation was repeated on the right side, and the fatty growth, which resembled exactly its predecessor, was excised. No processus vaginalis could be discovered. Again the wound suppurated as on the first occasion, and healed only after a tedious process of granulation. The patient was discharged on Dec. 30th. Subsequently a small tumour showed itself at the external ring and on examination this proved to be an enterocele.

CASE 2 (from notes by Mr. H. C. Barraclough).—A man aged forty-three years was admitted to St. Thomas's Hospital on May 5th last with a tumour in the left inguinal region. The patient was a spare man, of excitable temperament and with a family history of tubercle. He had noticed for several years the swelling, which gradually increased in size and caused him some inconvenience by its liability to ache after he had been walking. On examination the tumour was found to be a soft, somewhat lobulated growth about as large as an egg, situated over the external inguinal ring and reaching below Poupart's ligament. It was not adherent to the skin and was movable over the deep structures, but it could not be reduced by manipulation. There was an indistinct impulse on coughing. The tumour was removed on May 18th. It proved, as anticipated, to be a lipoma, with a narrow neck, extending into the crural canal up to the subperitoneal tissue, and it was found to be connected with an infundibuliform process of peritoneum of about an inch in length. The serous prolongation, which was empty, was isolated and ligatured as high as possible and the wound was closed. Healing by first intention followed, and the patient left the hospital on June 1st.

Remarks by Mr. ANDERSON.—These curious outgrowths of fat from the subperitoneal tissue are of sufficient rarity to deserve record. In some instances, as in Case 2, the diagnosis is easy, but in others the characters of omental hernia may be exactly simulated. In the inguinal form the tumour may or may not be associated with a peritoneal process. In Case 1 there is little doubt that one existed, although it could not be found at either operation, and it is possible that the widening of the canal left by the removal of the fat which previously occupied it predisposed to the subsequent descent of a true hernia. In the femoral form the downgrowth of the fat tends to draw with it mechanically a pouch of parietal peritoneum, as in Case 2, and the diagnosis may then be complicated by the super-addition of an omental or intestinal hernia. It is worthy of notice that although the tumours present the appearance of encapsulation where they project beyond the abdominal wall ring they are continuous without any line of demarcation with the subperitoneal tissue; and hence the most complete removal gives no assurance of a lasting cure. In Case 1 the growth reappeared within a few months and may again recur, and in Case 2 the same contingency may be looked for. The repeated failure of antiseptic precautions in Case 1 is of interest in illustration of an occurrence which in my experience is very frequent in alcoholic subjects, and can only be explained on the grounds of lessened resistance to the attacks of organisms which almost necessarily gain admission to an open wound from the air in the course of a surgical operation. In Case 2, that of a man of greater age and feebler physique but of temperate habits, the course of healing was free from all inflammatory complications.

[1] Curling, on the Testis; Sir A. Cooper, on Hernia; Maunder, London Hospital Reports, vol. i.; Annandale, Brit. Med. Jour., vol. i. 1868; Macilwain, Surgical Observations; Peletan, Clinique Chirurgicale, vol. iii.; Broca, Bulletin de la Société Anatomique; Cloquet, Mémoire sur les Hernies; THE LANCET, Dec. 14th, 1889; Dec. 5th, 1885; Transactions of the Pathological Society, vol. xxxvii.; Hutchinson, vol. xxiv; Gay, vol. xvii.; Lane; Gluge, Pathologische Lieferungen, viii.; Weinber, Virchow's Archiv, 1869.

ST. SAVIOUR'S INFIRMARY, EAST DULWICH.

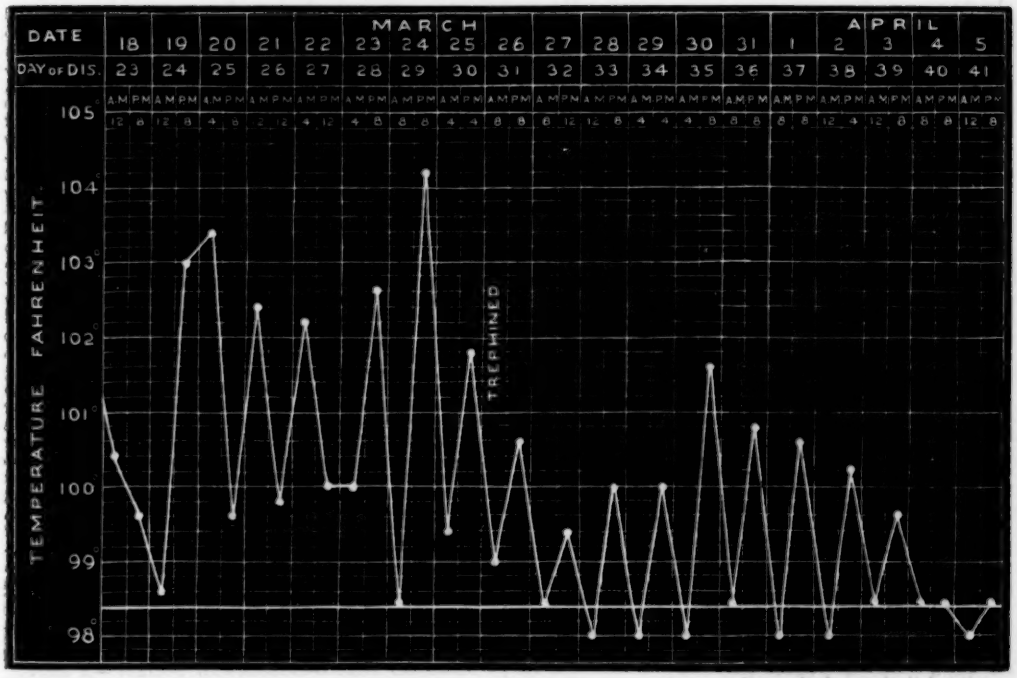
A CASE OF THROMBOSIS OF THE LATERAL SINUS; OPERATION; RECOVERY.

(Under the care of Mr. H. ELWIN HARRIS, Medical Superintendent.)

FOLLOWING the very instructive clinical lecture on the "Diagnosis and Treatment of Thrombosis of the Lateral Sinus in connexion with Ear Disease" by Mr . H. Bennett,

published in THE LANCET of Sept. 9th, this case is of some interest in emphasising the importance of surgical interference, even though it be somewhat delayed, and also in recording a most satisfactory result after an operation which deviated from the usual method of procedure. In most cases of septic thrombosis of the lateral sinus, secondary to ear disease, which have been successfully operated on, the original suggestion of Mr. Horsley has been carried out, and the internal jugular vein has been ligatured in the neck before the septic thrombus has been disturbed. That ligature of the vein may be occasionally dispensed with is proved by the recovery of this patient; here the clot was of limited extent and no difficulty appears to have been experienced in entirely removing it. We, however, consider that in our present state of knowledge it is safer to ligature the vein, as one source of danger to the patient, the entrance of septic material by the main highway into the general circulation, is thus prevented.

A man thirty-five years of age was admitted into St. Saviour's Infirmary on Jan. 26th last suffering from basic lobar pneumonia, very extensive on the right side, but less so on the left. The attack was exceptionally severe, his temperature on the fifth, sixth, and seventh days of the disease rising to and lowest temperatures recorded each twenty-four hours and the times at which they were taken, is of a markedly hectic character. Before March 18th, after which date the chart commences, the temperature was similar to that recorded before operation and shown in the chart. The rise to 103°, however, on the twelfth day of the disease occurred in the morning, whilst 98° were registered in the evening. At 8 A.M. on the fifteenth day the temperature rose to 104·6°, with a distinct rigor. The patient's condition had now become worse. He was drowsy, only rousing himself when spoken to; there was some photophobia present, but nothing abnormal was discovered with the ophthalmoscope. The pain in the ear was still severe and there were much tenderness and some swelling just below the mastoid process. Thrombosis of the lateral sinus was diagnosed and operation suggested, but owing to some delay in obtaining consent it was not until March 26th, a month and two days after the commencement of the disease, that the operation was performed. The swelling below the mastoid process, extending down the neck over the large vessels, was now considerable, œdematous and exceedingly tender to the touch. Chloroform having been administered



105·4°, 105·6°, and 105·8° F. respectively, but a marked crisis occurred on the tenth day, and he eventually made a most satisfactory convalescence from the pulmonary trouble. During the latter part of convalescence he had a purulent discharge from the right ear, a symptom which he stated he had occasionally suffered from for some little time. On his admission to the infirmary it was noted that his voice was extremely husky, and an examination of his throat revealed that he had no uvula or soft palate. He gave a history of "ulcerated sore-throats," and there was reason to believe that they were of a specific nature. The discharge from his ear gave him little trouble, and he continued to be well until the evening of Feb. 24th. His temperature then rose to 103·6°, and on the evening of the following day to 105·4°. Severe ear-ache on the right side, pain over the parietal region, and shooting round to the forehead were all that the patient complained of, and there were no physical signs in any of his organs to account for his temperature. The ear-ache remained constant, but the discharge entirely ceased; there was some tenderness on pressure just below the mastoid process, but it was slight and there was no swelling. The accompanying chart, which commences on the twenty-third day of the patient's attack, gives the highest and the parts shaved, it was decided to trephine, not directly through the mastoid cells, but a little above and behind them, with a view of exposing the lateral sinus where it dips down to the petrous portion of the temporal bone. This was accomplished without difficulty, and a hypodermic needle was inserted into the sinus. A little thick purulent sanguineous fluid was withdrawn and it was assumed that the clot had softened. An incision was then made along the sinus for about half an inch; a small but quite appreciable quantity of fluid of a similar character to the above escaped, and was immediately followed by a rush of venous blood. The hæmorrhage being quite free and there being apparently nothing remaining of the thrombus, the hæmorrhage was easily checked by pressure, after which the soft parts were brought together and the wound was dressed antiseptically. The patient appeared to be much better in the evening after the operation; the earache had entirely disappeared and he expressed himself as being quite comfortable. The temperature continued to rise in the evening during the following few days, and on the fourth day after the operation, and for four days later, he suffered from persistent hiccough. On the seventh day after trephining all his symptoms ceased and he made

a most excellent recovery and has remained free from any discharge from his ear since.

Remarks by Mr. H. ELWIN HARRIS.—This case is remarkable for the little change which had taken place in the structures adjacent to the site of the thrombosis; beyond the meninges being slightly congested the disease appeared to be entirely limited to that part of the lateral sinus. Taking into consideration the duration of the disease (thirty days from the initial rise of temperature), the marked hectic character of the temperature, and the general drowsy and stupefied condition of the patient, it was anticipated that at least some severe meningitis, if not a cerebral abscess, would be found; and this idea was, in a great measure, responsible for that particular spot being selected at which I trephined. Another point worthy of notice in this case is the fact that the internal jugular vein was not ligatured previously to trephining; but whether the patient ran any additional risk by the omission of this step in the operation I am not prepared to say. It must remain a question of probability whether the internal jugular vein was even thrombosed or not, as it was impossible to diagnose its condition. My own impression and that of my colleagues was that the softened thrombus was completely washed out by the current of blood, and that as far as one could judge the sinus was left quite free. The mastoid cells could have been but slightly diseased, as there has been no recurrence of the otitis.

Medical Societies.

OBSTETRICAL SOCIETY OF LONDON.

A MEETING was held at 20, Hanover-square, on the 4th inst., Mr. G. E. HERMAN, President, in the chair. The following specimens were shown: Spina Bifida, by Dr. EDEN; and Placenta from Case of Accidental Hæmorrhage, by Mr. MUIR.

A paper by Dr. BOXALL on the Relation of External Meteorological Conditions to the Incidence of Febrile Illness in Childbed was then read. He discussed the relation under two heads—those of mortality and morbidity—and based the inquiry on statistical evidence, that for mortality being derived from the Registrar-General's returns for London and from Professor Lusk's table for New York, and that for morbidity from the records of the General Lying-in Hospital. These statistics were graphically represented, and Dr. Boxall came to the following conclusions: 1. The death-rate from puerperal fever is greater during the winter than during the summer months, and this holds good both for London and New York. 2. Septic illness in childbed is more prevalent in the winter and in this respect agrees with the mortality. 3. But septic illness, though more prevalent, is attended with less fever, and is therefore of less severity in the winter. 4. On the other hand, cases of febrile illness other than septicæmia and pelvic inflammation in lying-in women are more prevalent during summer than winter. 5. As regards severity they evince no difference according to the season of the year. 6. Owing to the improvement which has been effected in the service of the hospital, the septic cases have since been so few and of such slight intensity that they have proved to be insufficient to neutralize the summer prevalence of non-septic cases. 7. It is pointed out that in the hospital patients are by means of open windows and ventilators more freely exposed to external meteorological conditions than is usual in obstetric practice generally; therefore it may be inferred that if external meteorological conditions possess any direct influence upon the health of women after delivery the effect would be apparent in these lying-in patients above all others.

Dr. CHAMPNEYS said that it was well known that in the progress of any research the final problems were usually of increasing difficulty. Dr. Boxall had collected facts with great labour and intelligence, and had analysed them, with the result that some conclusions were arrived at which were not easy of immediate explanation.

Dr. AMAND ROUTH pointed out that lying-in hospitals had been able to practically eliminate the unfavourable influence of the colder seasons, which pointed to that influence being indirect only.

Dr. H. SPENCER said that it was not in January, February, and March that we in this country had spring weather; that was the coldest quarter of the year, as was well known. He thought that a closer approximation to the seasonal variations would be obtained by beginning to count the seasons at April, or still more accurately at March.

After some remarks from Dr. Cleveland and Dr. Chepmell, Dr. BOXALL, in reply, said that the statistics upon which his observations had been based were admittedly imperfect in certain respects, but he had exercised every care in order to make them as accurate as possible. In endeavouring to arrive at the actual facts he indicated the possible bearing of such imperfections wherever conclusions were drawn.

WEST LONDON MEDICO-CHIRURGICAL SOCIETY.

The Diagnosis and Treatment of Typhoid Fever.

THE opening meeting of this Society was held on Friday, Oct. 6th, the President, Dr. DONALD HOOD, in the chair.

Dr. DONALD HOOD read a paper, in which he discussed his personal experiences regarding the diagnosis and treatment of typhoid fever. He particularly dwelt upon the difficulties in the diagnosis of the milder forms of typhoid fever, and brought forward numerous cases as evidence of the insidious anomalous onset with which the attack frequently commences. He described two classes of cases, the one running throughout a mild course, wanting in the usual definite symptoms, but, nevertheless, attended with all the dangers of the specific bowel lesion; in the other the primary seizure of incipient character being followed by a relapse or secondary attack with well-developed symptoms. From his own experiences, derived from 116 cases extending over a period of about ten years, with a mortality of under 10 per cent., he felt strongly that in by far the largest proportion of cases the extreme antipyretic treatment of the day was contra-indicated and based on a mistaken view of the febrile process. In support of this view he referred to the high range of temperature occurring in relapsing fever, stating that in this disease, with the temperature rising in numerous instances to 107° F., the mortality was barely 1 per cent., which appeared to him to prove beyond cavil that simple pyrexia need not of necessity be of grave omen. But pyrexia *plus* the disease which gave it birth he should regard as very grave. Whilst a patient suffering from acute rheumatism and high temperature might be in appalling danger by reason of the extreme pyrexia, another suffering from influenza, ague or relapsing fever might be in a position free from anxiety, and the subject of a passing phenomenon of little moment. He spoke warmly of the value to be attached to alcohol administered with due vigilance and control, and as strongly urged the contra-indication of all aperient remedies during the entire period of attack.—Mr. SWINFORD EDWARDS, as ex-President, proposed a vote of thanks to the President, which was seconded by Dr. CAMPBELL POPE.—The PRESIDENT briefly replied.

PROVINCIAL MEDICAL SOCIETIES.

BRADFORD MEDICO-CHIRURGICAL SOCIETY.—A meeting of this Society was held on Tuesday, Oct. 3rd, Mr. JOHN APPLEYARD, President, in the chair.—Dr. J. H. BELL, the retiring President, having vacated the chair, Mr. APPLEYARD delivered an address on some Hygienic Points applicable to Bradford. He referred to sanitation in ancient civilisations, and said that although hygienic ideas were then crude, yet in many respects we were still behind them. In Bradford, with a population of 240,000, living in about 45,000 houses, the majority of the houses were of the unhealthy back-to-back type without through ventilation, and with a heap of filth and garbage in the ashpit of about two square yards extent, making 90,000 square yards of pestilent area in the town, necessitating in warm weather the closing of all the house-doors and windows. The drainage system had no provision for ventilation except street "grids"; there were no ventilating shafts, and in summer the gullies were generally dry. Plans were shown for providing houses with through ventilation at about the same cost as those built back-to-back, and the daily removal of refuse was urged. He concluded by referring to unnecessary noise and the paving of streets with grey granite sets, which results in enormous needless suffering to horses and damage to vehicles.—Dr. HERMANN BRONNER showed a married woman aged forty-six, who

had suffered from Myxœdema for about six years, complaining of "feeling cold and swollen all over." She was short and stout; the face was pale and expressionless, the eyes seeming to be wider apart than usual; the hair was thin and dry; the eyelids were swollen, the speech slow and deliberate, the skin dry, and the hands broad and spadelike; the temperature was subnormal. The patient was given two thyroid tabloids thrice daily. A month of this treatment had brought about great improvement, the temperature having risen; the weight had fallen from 172 lb. to 151 lb.—A number of Histological and Bacteriological preparations were shown.

BRIGHTON AND SUSSEX MEDICO-CHIRURGICAL SOCIETY.—A meeting of this Society was held on Oct. 5th, Dr. EWART, President, in the chair.—Dr. A. J. RICHARDSON showed a case of Rheumatoid Arthritis, in which great deformity had been produced in the hands and feet by an attack eight years ago, since which the disease had been quiescent.—Dr. HOLLIS related a case, showing specimens and microscopic preparations, of Contracted Kidneys, in which there had been very extensive ulceration of the aorta. Many of the usual symptoms of ulcerative aortitis were present.—Dr. A. J. RICHARDSON read some notes on Testing for Albumen in the Urine. Acidulation should be subsequent to boiling, and for minute quantities of albumen 1 per cent. of acetic acid should be used; Heller's test is not sufficiently delicate. In two cases of interstitial nephritis albumen had been present for more than a year before there was sufficient to give a ring with nitric acid. Picric acid is most usefully employed as a cold test; the subsequent application of heat may lead to error. Ferrocyanide of potassium and acetic acid must not be used as a contact test, as recommended by Jaksch; it is only a little more delicate than Heller's test. Trichloracetic acid showed a dense ring in many urines in which no other method showed albumen; for the present it must be looked upon with some suspicion. One test should never be relied upon, and in all notes the method adopted should be recorded.

FORFARSHIRE MEDICAL ASSOCIATION.—A quarterly meeting of this Association was held in the anatomy class-room of University College, Dundee, on Friday, Sept. 29th, at 4 P.M., Dr. ROBIE, Vice-President, being in the chair.—Dr. MACKIE WHYTE showed a case of Psoriasis, which had been treated by thyroidin, but without benefit; and Dr. MCGILLIVRAY showed two ophthalmic cases, one of them being a case of Vaccination on the Upper Eyelid.—Dr. MACKIE WHYTE showed a Spleen which weighed seventy-four ounces, taken from a case of splenic leucocythæmia. The patient, a man aged fifty, had been ill for five months with the usual symptoms. An estimation of the blood showed a reduction of the red corpuscles to a somewhat unusual extent (1,160,000 per cm.) and an increase in the leucocytes, which were in the ratio to the red corpuscles of 1 in 20; hæmoglobin, 16 per cent. Hæmorrhagic retinitis of a characteristic form was present. An uncommon appearance was the presence of brown pigment on the lips and the adjoining mucous membranes, on the nipples and on the glans penis. The man died three days after admission to the infirmary with many distressing symptoms of pulmonary coagulation. At the necropsy whitish clots were found in all the cavities of the heart, in the pulmonary arteries and in the large veins of the thorax and abdomen. There was no affection of the adrenals or solar plexus. The liver and kidneys were much enlarged and were infiltrated with leucocytes.—Dr. ROBIE, in the discussion which followed, referred to the mode of death and gave it as his impression that this intra-vascular clotting was not uncommon amongst asylum patients, and quoted Sir Joseph Fayrer on this subject.—Dr. STALKER read notes of an interesting case of Left-sided Hemiplegia with Aphasia, followed by muscular atrophy of the arm and leg on the affected side.—Dr. ROBIE read notes of a case of Gangrene of the Foot from obstruction of the right iliac artery.—Professor A. M. PATERSON exhibited the Skeleton of a Negro which showed various interesting abnormalities from a biological point of view.—Numerous pathological specimens were shown by Drs. WHYTE, BUIST and PATERSON.—The attendance of members was small, but the amount of material brought forward was such that it could not be dealt with in the time at the disposal of an ordinary meeting, and it was therefore resolved to have an evening meeting of members resident in Dundee at a date a month hence.

PLYMOUTH MEDICAL SOCIETY.—The opening meeting of the winter session 1893-94 was held in the Society's library on Wednesday, Oct. 4th, Mr. LEAH (Stonehouse), President, in the chair.—Mr. WOOLLCOMBE showed a case of Lead Palsy in a paint mixer aged sixty-one, complete on the right and partial on the left side, dating from six and three weeks ago respectively; he had suffered from colic but not gout.—Mr. LUCY showed for Dr. FOX a girl aged ten with marked swelling of the interphalangeal, wrist and knee-joints, slight exophthalmus, horizontal nystagmus, a pulse-rate generally 110 per minute and a large square head. On teaspoonful doses of the elixir thyroidin and half a thyroid tabloid bi-weekly she had lost pains in the joints and had improved steadily. It was doubtful whether it was a case of sporadic cretinism or extreme late rickets.—Mr. C. E. RENDLE exhibited a case of Traumatic Cataract and Dislocated Lens, and also a boy of nine with Syphilitic Kerato-iritis.—Mr. STANLEY THOMAS showed a man aged forty-four with enormous Varicosity of a Vein running along the anterior edge of the left tibia.—Mr. WOOLLCOMBE read notes by Dr. FOX and showed a woman aged forty, who twenty-three years ago first noticed swellings on both ears; they increased to the size of a walnut. Three years afterwards the swellings were removed by Dr. Roper. Sixteen years ago, having recurred, they were removed in the Cardiff Infirmary; nine years ago, having grown again on the left ear, the swelling was removed; and six years ago the patient was shown at this Society by the late Dr. Prance; since then that on the left side had gradually disappeared and that on the right had decreased in size. They were considered to be recurrent keloid growths.—The PRESIDENT then reviewed the work of the past session and stated that the membership had reached forty-three, and that eight papers had been read and eight clinical evenings held.

Reviews and Notices of Books.

The Physiologist's Note-book: a Summary of the Present State of Physiological Science for the Use of Students. By ALEX. HILL, M.D., Master of Downing College, Cambridge. London: Charles Griffin and Company, Limited. 1893.

THIS somewhat new departure in students' books appears opportunely in view of the opening of the medical session. It does not pretend to be a text-book or to compete with the great works on physiology already in existence. Most hard-working students in reading and in listening to lectures gather together a greater or smaller store of concise notes which play no unimportant part in their future work of preparation for examination. The Master of Downing College is modest enough to compare his book to such notes. This is highly complimentary to the good student, but it is scarcely just to himself. Dr. Hill has succeeded in giving all the essential points and details with much clearness and in due proportion, so that the "Note-book" constitutes an admirable compendium of our present information, with historical notes of its progress from the beginning. It is gratifying to notice in these notes the part played by English observers, in spite of the disadvantages under which biologists labour at home, in the progress of discovery, as witnessed by the work of Addison and Waller in respect of the nature of white corpuscles, of Jackson and others in the localisation of cerebral functions, and of Horsley, Murray and others in regard to the thyroid gland. A chief feature of the book is the typographical arrangement, the subject-matter being divided under headings printed in darker type, and the division of these into paragraphs which are numbered and lettered. Where there are several reasons for and against a theory these are placed under paragraphs *pro* and *con.*, thus securing at a glance the chief evidence on both sides. The diagrams and the majority of the plates, the larger number of which have been drawn for the book, are diagrammatic, clear and distinct. Other special features which will recommend the book to the student are the blank pages for notes which are scattered throughout the volume, and the bibliography of English authors, which is inserted in the form of foot-notes at the bottom of the pages. The book is another illustration of the profusion with which a facile statement of knowledge is prepared for the use of students, and if it is accepted, as it is meant, it will be a real acquisition to their library.

Horses, Sound and Unsound, with the Law relating to Sales and Warranty. By J. IRVINE LUPTON, F.R.C.V.S. London: Baillière, Tindall and Cox. 1893.

ON the soundness of horses depends to a greater or lesser degree their usefulness to man in general and the medical practitioner in particular, and, considering the value of these animals in so many different ways, in which their strength and speed are invoked, it is important for those who have to purchase, sell, and work them to know something of the defects and infirmities which mar their utility and depreciate their price; but it is to be remembered that the question of what constitutes unsoundness, and, in fact, of what soundness itself implies, is one that has troubled the legal and veterinary mind for a long period. Technically very few horses are sound; practically very many technically unsound horses are perfectly fit for the kind of work for which they are physically adapted, and they may continue to perform it all their lives without suffering any inconvenience or detriment from the condition which brings them into the category of unsound animals. Therefore it is that the term "unsoundness" as applied to horses has been a fertile cause of dispute and has afforded abundant opportunities for legal intervention. There are some conditions which are of the most trivial character and in no way affect the usefulness of a horse, and yet, because they constitute what is technically an unsoundness, diminish the market value of the animal very considerably. Consequently, when a horse is pronounced to be unsound this should not in every case signify that it is useless until it is understood what the defect may be. For this reason it is that some veterinary surgeons recognise that a horse may be technically or legally unsound, but sound for all practical purposes, and give an opinion to that effect when called upon to examine horses. It is needless to say that from the uncertainty pertaining to this matter the responsibility of the expert is by no means a light one, and he needs all his acumen and experience to carry him through the task of the examination of horses without damage to his reputation or pocket, or both, in the face of the conflicting opinions that prevail in this direction. In order to reconcile these diverse views, and thus obviate disputes and subsequent recourse to the very expensive and seldom satisfactory proceedings of the law courts, many books have been published, and probably many more will see the light before any generally acceptable conclusion is arrived at as to what defects really mark a horse as unsound.

Mr. Lupton has favoured the horse-owning public with an addition to the somewhat long list, and has evidently endeavoured to throw additional light on the conditions which produce unsoundness and to show how easily the occurrence of many diseases might be prevented by attention to hygienic laws. The largest portion of his book deals with those diseases and injuries, however, which are included in works on veterinary medicine and surgery, and only one chapter is devoted to horse sales and warranty; but a long chapter on the Contagious Diseases (Animals) Act is included, which has no relation to the preceding chapters, and is in no way recognised in the title. The same may be said of the last chapter in the book, which deals with the prevention of cruelty to animals—a subject also quite foreign to that which the book professes to discuss. Surely this is a mistake. At any rate, such interpolations do not improve the work; neither do the illustrations, which are introduced to show the features of some of the morbid conditions that cause unsoundness.

The Nursing Directory for 1893. London: The Record Press, Limited.

THE second annual volume of this work has appeared, containing the names and qualifications of about 1700 trained nurses, who are distributed amongst five groups—viz., as resident in London, the Provinces, Scotland, Ireland, or abroad. The volume also contains a list of training schools and in most instances publishes the regulations under which probationers can be received and trained, although in the case of one hospital the editors have been unable to secure the necessary information. It seems very odd that any institution professing to receive young women for training as nurses should shun publicity in reference to such matters, but it is difficult to imagine what other explanation than the unwillingness of the hospital authorities to communicate their rules can have placed this institution in the position which it alone occupies in the publication now under review. Besides the principal training institutions, the various nursing societies and insurance offices receive notice in this volume, which is thus made singularly complete as a book of reference for the general public as well as the nursing profession. The work of editing and of publishing has been exceedingly well done; but we feel bound to touch upon what appears to us to be a blemish in the reference made to the Royal National Pension Fund to Nurses. In an explanation given of the objects of this fund a criticism is passed upon its premium rates which appears to us to be ill-judged. It is not possible to compress into a single sentence any just strictures upon so complex a scheme, and we hope that in future issues of the directory the editors will recognise this.

JOURNALS, SERIALS, AND REVIEWS.

The Journal of Pathology and Bacteriology. Vol. II., No. 1. October, 1893. Edinburgh and London: Young J. Pentland.—The new phase into which the histological study of cancer has entered—namely, that of the identification of alleged parasitic protozoa within its cellular elements—may be said to dominate this particular branch of research. An abundance of fresh facts are furnished, in this number of the volume, in a new instalment of their researches by Dr. Ruffer and Mr. Plimmer contained in a paper giving a lucid description of their own work, which is illustrated by a series of beautifully executed plates, together with a critical study of the work of others in the same field. The writers are careful to discriminate between the bodies which they deem to be the actual parasites, whose fissiparous changes they have observed, and other intracellular bodies which have been mistaken for them. This paper is followed by one on the same subject by Drs. Lindsay Steven and John Brown, who write with more caution as to the parasitic nature of the bodies they have met with in cancer cells. They admit that these are organised elements and not the result of passive changes such as vacuolation or degeneration, but beyond that they do not go. Dr. A. C. Abbott has repeated experiments of inoculation of cows with the bacillus diphtheriæ analogous to those performed by Dr. Klein, but without succeeding in obtaining cultures from the seat of inoculation or observing any changes in the udder or internal organs. The tissues of the animals yielded abundant bacilli, but none were to be detected in the milk. The research was carried on at the Laboratory of Hygiene, University of Pennsylvania. Dr. G. S. Brock contributes (from the Transvaal) a paper on the Bilharzia Hæmatobia, in which he clearly shows that the parasite is mainly, if not solely, introduced through drinking or bathing in infested waters. A summary of his researches appeared in THE LANCET of Sept. 9th. Two brief but interesting papers on Descriptive Morbid Anatomy, with excellent illustrations, are those on Pachymeningitis Chronica Externa by Dr. Alexis Thomson, and on a Peculiar Hæmorrhagic Tumour of the Kidney by Dr. H. D. Rolleston and Mr. A. A. Kanthack. This admirable number closes with the first part of an exhaustive study on the Venous and Liver Pulses by Dr. Jas. Mackenzie of Burnley.

The Quarterly Medical Journal for Yorkshire and Adjoining Counties. Vol. II., Part 1. October, 1893. Sheffield:

Pawson and Brailsford. With the commencement of a new volume this successful new periodical appears with a change of title, preferring for the sake of accuracy one somewhat more cumbrous but less restricted than its original cognomen of *The Sheffield Medical Journal*. The chief place is given to Sir James Crichton-Browne's philosophical address on Biology and Ethics which we were enabled to publish in THE LANCET of Oct. 7th. Mr. R. J. Pye-Smith writes in appreciation of Surgeon-Major Keith's "hammer and chisel" method of breaking up large vesical calculi and gives details of three cases, in two of which the plan was followed. Mr. Mayo Robson records a surgical triumph in his brief account of a case of "supra-pubic hysterectomy" performed at the same time as a radical cure of an "enormous umbilical hernia;" and Mr. W. A. Garrard demonstrates the advantage and utility of inguinal colotomy for rectal cancer. Dr. Mantle writes on Scarlatinal Rheumatism, and suggests that the alliance between the two diseases concerned may perhaps be found in the similarity of the waste products retained (e.g., lactic acid) in each disease. Mr. Frank Harrison describes some Dental Anomalies, illustrated by reproductions of photographs. In discussing the causation of the "Gallop-rhythm in Cardiac Disease," Dr. Handford, we are pleased to observe, draws attention to its production in pericarditis. He considers, however, that it is of most prognostic significance when it resembles a reduplication of the first sound and is of endocardial origin. A few other papers, some pages of discriminative reviews, and well-worded selections of abstracts of papers in various branches of medical science make up a highly interesting number.

The Dublin Journal of Medical Science. Third Series. No. 262. October, 1893. Dublin: Fannin and Co.—This number only contains two original communications: one of these is on Adenoma of the Kidney in the Adult, by Mr. Conolly Norman, descriptive of a rare pathological condition which hitherto has been chiefly known through the writings of Sabourin and Grawitz. The other deals with Extra-capsular Fracture of the Neck of the Thigh-bone, and is by Dr. E. H. Bennett, who gives grounds for the belief that the injury may occasionally be caused by muscular action independent of any fall or blow. One feature of the number is a series of reports (in continuation of others previously published) on topics bearing upon the prevalence of Typhoid Fever in Dublin.

The Bristol Medico-Chirurgical Journal. Vol. XI., No. 41. September, 1893. Bristol: T. W. Arrowsmith.—Whether the steady increase in the number of the insane registered in this country—an increase out of proportion to the increase in population—is to be interpreted as indicative of an actual increase in insanity is the thesis of an article by Dr. C. S. W. Cobbold, formerly Medical Superintendent of the Earlswood Asylum. His answer is reassuring, for he points out that, for the past three years at least, there has been no increase in the rate of admissions of new cases into the asylums, and truly says that modern care and treatment of lunatics are doubtless largely responsible for the official knowledge of greater numbers. At the same time, he points to the causes in operation which tend to increase the roll of mental and nervous disease, but is optimist enough to hold the view that the good accruing from civilisation and education more than counterbalances the evils they may bring. Dr. P. Watson Williams describes a case of extensive laryngeal disease in which the lesions were suggestive of a combination of syphilis and tuberculosis, and points to its similarity to a case described by Schnitzler in 1868, in which the post-mortem examination was made by Rokitansky. A case of Lesion of the Corda Equina characterised by marked sensory, motor and trophic troubles, including perforating ulcer of the foot, is related by Dr. J. E. Shaw and Mr. Paul Bush. The lesion commenced in an injury sustained eleven years previously; and an operation in which much organised clot was removed from the spinal canal resulted in partial improvement.

The Practitioner. No. 304. October, 1893. London: Macmillan and Co.—The most interesting article in this number is that on the Varieties of Pulmonary Tuberculosis by Dr. Kingston Fowler, who considers that the time has come to discard the term "phthisis" from current nomenclature. Of 166 cases under his care at Brompton Hospital, 149 were regarded as chronic pulmonary tuberculosis, 4 as caseous tuberculosis, and 13 as fibroid tuberculosis, the list not comprising any example of "miliary tuberculosis of the lungs." The clinical charabters of each of these types are lucidly described, and the reader cannot fail to be struck with the reasonableness of the suggested classification. Dr. Michell Clarke gives an account of Multiple Abscess of the Liver, with illustrative cases, and suggests tests to distinguish this fatal condition from the more remediable one of large solitary abscess. The toxic effects of antipyrin, acetanilide and phenacetin are related by Dr. D. R. Paterson which may in the main be summarised as being those of cardiac depressants. A noteworthy condition produced by acetanilide is anæmia, due to the direct action of the drug on the red blood-corpuscles.

The Birmingham Medical Review. No. 182. October, 1893. London: J. & A. Churchill. Birmingham: Hall and English.—Dr. Stacey Wilson's contribution to the clinical history of Friedreich's disease is a careful study of four cases in children, two of whom were of one family. The points of difference from, and resemblance to, locomotor ataxy are well brought out, and it is interesting, further, that one of the patients suffered from glycosuria. Dr. Saundby has a note on the employment of Calcium Chloride as a Hæmostatic. He gave the drug in "the form of the liquor calcii chloridi of the new Pharmacopœia, which is of the strength of 1 to 5, and the dose employed never exceeded thirty minims, or six grains." It seemed to have a marked effect in the arrest of rectal hæmorrhage from internal hæmorrhoids, and also in a case of purpura hæmorrhagica in which ergot, gallic acid &c. had failed.

The Medical Magazine. Vol. II., No. 4, October, 1893. London: Southwood, Smith, and Co.—Mr. A. A. Kanthack, in writing upon contagion and contagiousness, does good service by laying especial stress upon the second factor in liability to infection—viz, that of the receptivity of the individual attacked; and speaking especially of tuberculosis he shows how vain and futile are measures directed against the "ectanthropic sources of infection," isolation, and the like, but how much can be effected by removing conditions that predispose to contagion. Dr. James Finlayson contributes an interesting essay upon the Care of Young Infants and Young Children according to the Bible and the Talmud. The subject of Medical Defence is editorially treated. The journal has a supplement dealing with matters of scientific and literary interest in medical education.

The American Journal of the Medical Sciences. No. 258, October, 1893. Philadelphia: Lea Brothers and Co.—Dr. Gilman Thompson, in a Study of Addison's Disease and of the Adrenals, relates six hitherto unreported cases and has collected the records of forty cases in which lesions of the adrenals have been observed without symptoms of Addison's disease. He goes over the well-worn ground and concludes from his extended studies in the literature of the subject, combined with personal observation, that irritation of the abdominal sympathetic nerve is the cause of the phenomena of Addison's disease, the irritation arising in fully 80 per cent. of the cases from tuberculosis of the adrenals. A case of Pericarditis associated with the Bacillus Pyocyaneus is described by Dr. Ernst, who gives a careful comparison between the organism present in this case and the two other described forms of the bacillus pyocyaneus. Dr. G. Carpenter of London

contributes an account of Pneumonia with delayed resolution and Fibroid Phthisis in Childhood; and the number contains other articles of surgical and pathological interest.

University Medical Magazine. Vol. VI., No. 1, October, 1893. Philadelphia: University of Pennsylvania Press.—The presidential address delivered at the first Pan-American Medical Congress at Washington last month by Dr. William Pepper, which opens the number, is marked by a just estimate of the progress that is being made in America in medical education and practice, and points out how these objects may be still further promoted by the meeting of the Congress. The address indicates the highest aims that the profession of medicine should have in view. Amongst the articles in the number may be mentioned one on Tumour of the Optic Thalamus by Dr. Wharton Butcher, the first symptoms complained of being myopia and mental lassitude; and one on Scarlet Fever by Dr. Ashmead.

The Sanitary Journal. September, 1893. Glasgow: Alex. Macdougall.—This number of the journal is devoted mainly to a summary of the proceedings of the Nineteenth Congress of the Sanitary Association of Scotland, which was held at Ayr on Sept. 7th and 8th. The opening address was delivered by Mr. Cochran Patrick, LL.D., who, after pointing out the great advances made by Scotland in recent years in sanitary science, dwelt upon the comparative expenditure on sanitary matters in England, Scotland and Ireland, and showed that the sums devoted in Scotland to the medical relief of the poor, to the payment of medical officers of health and to registration were proportionately much smaller than in England and Ireland. It is hoped that the attention of Scottish members of Parliament will be directed to the subject. Mr. Sheriff Spens, LL.D., read a paper on Administrative Sanitary Reform, in which he advocated (1) the establishment of a Public Health Department, to be presided over by a Minister of State; (2) the division of Scotland into public health districts, without regard to urban or rural populations, each district to be sufficiently large to require the whole time of a medical officer of health and sanitary inspector; and (3) that the latter appointments should be filled only by men having high qualifications, to be carefully tested before appointment. Dr. Ebenezer Duncan, President of the Sanitary Association, strongly insisted during the course of his address upon the need of reorganisation of the Board of Supervision, and contended that besides lawyers the board should contain representatives of the engineering, medical and veterinary professions, and also chemists. Sir Charles Cameron contributed a paper on Certification of Deaths in Scotland, Dr. McVail one on Cholera Prevention, Dr. Macdonald one on Soil in its Relation to Health, and Professor Whalley one on Milk in its Relation to Health. Professor Wright and Mr. Henderson dealt separately with the question of Air Space in Byres, and a resolution was passed by the Congress "that there should in every dairy or cowshed be a space for each cow of not less than 800 cubic feet."

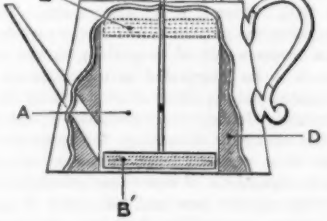
New Inventions.

AN IMPROVEMENT IN THERMOMETERS.

MR. JOSEPH KENT, of 98, Hatton-garden, E.C., points out that clinical and other thermometers which have the scale marked upon the tube are liable to have the markings of the scale defaced or obliterated through the constant cleansing of the instrument with acid or other liquid, a precaution that is especially necessary in infectious cases. He has therefore designed a thermometer which is provided with an indestructible scale immediately behind the bore and in close proximity to the mercury. Apart from other advantages greater accuracy in the reading is thereby secured. The device consists in substituting for the enamel, usually embedded in and forming an integral part of the body of the tube at the back of the bore, a separate scale-marked strip of enamel or other suitable material inserted into a second bore provided in the thermometer tube, the instrument being so far completed that the enamel strip may be "pointed" or graduated by actual reference to the mercurial column; the scale-marked strip is then inserted in the special bore provided for it and sealed in such a manner as to be accurately and effectually fixed in position, being thus protected from injury. We have tested and examined both a clinical and chemical thermometer constructed on this principle and have found the reading to be very accurate and very easily and conveniently observed. It is manifest that this improvement is one that will be appreciated, not only by those who are concerned in making precise clinical thermometric observations, but obviously also by those engaged in determining the temperatures in many chemical operations in the course of which sooner or later the markings of the ordinary thermometer would be certain to deteriorate.

"TEAPOTS."

THIS invention in its original form was described, under the above heading, in THE LANCET of July 2nd, 1892, but the makers (Messrs. Wilson and Blessley, of Paul-street Works, Finsbury, E.C.) have since effected certain improvements which will be apparent on referring to the accompanying woodcut. The teapot now consists of two containers (A and D); the outer (A) is intended to be filled with boiling water by which the inner cylinder (D) containing the tea-leaves is made warm before the infusion is prepared; the outside chamber, in fact, acts as a hot-water jacket. The tea is placed in the gauze cage (B′) and after infusion, the time for which can obviously be regulated at will, the cage containing the spent leaves is lifted out of the liquid by means of a rod (C′) running through the lid in the manner of a plunger. The dotted lines B″ and C″ indicate the position of the cage and rod after the withdrawal of the leaves from the liquor in this manner. Thus a beverage may be prepared which will be



wholesome, palatable and warm even after long standing. In addition to this improvement, and acting on a suggestion which we made in a former notice, the makers have lined the teapot with an enamel of porcelain. The object and aim of this introduction are, however, in part defeated, since the surfaces of the cage as well as of the spout are metal. We see no reason why the teapot should not be constructed entirely of porcelain. In the meantime we do not fail to recognise and to approve of the long-needed reform, which, in the matter of tea-making, the manufacturers are striving to accomplish. Their device is simple and effectual, and such as, with the slightest possible trouble, will secure an infusion free from objectionable principles.

THE LANCET.

LONDON: SATURDAY, OCTOBER 14, 1893.

BEFORE taking leave for the present of the subject of the registration of midwives it behoves us to try to extract the lessons of the evidence. This, taken with the copious correspondence to which we have given publication during the last few weeks, leaves little more to be said in the way of statement or argument. We cannot forbear a few words here on the seeming tendency of this subject to draw those who discuss it into loose and vague statements. It is serious to see that after time for reflection Dr. ATTHILL deliberately affirms that he prefers "an absolutely ignorant midwife" to a "badly educated student." "An absolutely ignorant midwife" is not, as he makes out, by any means the innocent uninterfering creature so sure to trust to nature alone. Dr. CHAMPNEYS, in another part of the evidence (Q. 1574) told the Committee that there came before the Obstetrical Society every few years cases where "a woman has torn the whole uterus out of the patient's body, and terrible things like that." Dr. EMMERSON of Biggleswade and others gave evidence to the same effect. The fact is that Dr. ATTHILL represents a country in which there is hardly a Poor-law Union without one or more trained midwives attached to it, who are paid small salaries and supplement them by private practice. He approves their training and testifies that they work exceedingly well in Ireland as midwives and as nurse tenders. Were there any such provision in England we should never have had the Select Committee on Midwives.

We can only now summarise a few of the impressions left by a perusal of the whole of the evidence. One is that there is a most inadequate provision in England for the safety and welfare of poor parturient women. As one of the lady witnesses before the Committee put it, the safe delivery of cows and mares is a matter of more anxiety in many rural districts than that of the wives of the labourers. This is a disgraceful state of matters that cannot much longer be endured. According to Dr. ATTHILL'S evidence they manage things better in Ireland, and it is not much to ask that English women shall be put into as good a position as their Irish sisters. Another point on which there is practically complete unanimity is that as a last resource every lying-in woman should be able to procure, without taint of pauperism, the attendance of a duly qualified medical practitioner. We are not saying that the State is bound to provide for every poor woman's natural confinement a fully qualified practitioner; but we maintain that, for all irregularities and emergencies affecting mother or child, such a practitioner should be available without delay, at the call of the midwife in attendance. Mere humanity asks for the immediate organisation of such an arrangement in every parish. The addition to public expenses would be trifling, and the necessity for it is urgent. Then comes the question on which difference of opinion exists—the legal recognition of a class of women to attend ordinary labour. Until the last five years or so there has been practical unanimity in favour of abolishing the "Gamp" type of midwife and replacing her by a woman who at the least understands the nature of ordinary labour and the enormous importance of cleanliness in all that pertains to parturient women. Some of our brethren think that the recognition of such women would be injurious to the medical profession. It is admitted on all hands that a large proportion of the poor cannot pay the half-guinea fee which we still hold to be the minimum sum that a self-respecting medical man should allow himself to accept. We must, as a profession, either consent to undertake this enormous mass of unprofitable work and stoop to fees which are inconsistent with the status of the profession, or we must allow it to be done by midwives having sufficient knowledge not to endanger the lives of those they attend. We are in favour of any penalties or precautions that will secure the strict limitation of such women to their own humble duties, and we gather from the evidence of the principal midwives examined, and others, that there is no desire on their part to encroach on the ground or to usurp the functions of medical men. Any tendency in this direction must be checked as an evil both to society and to those engaged in the profession of medicine.

Finally, it is shown most clearly in the evidence that the obstetric education of students is most inadequately carried out in some of the medical schools. We do not believe that midwifery was ever practised by medical men with more care and skill than it is to-day. The practical and responsible midwifery of London—and of the country too—as conducted by general practitioners is highly creditable to them; but there are schools which have no claim to any credit in this matter; and if the General Medical Council did its duty the schools in question would either have to improve their work in this respect or forego the pretence of training students in midwifery.

WHEN the Acts for the prevention of venereal diseases in certain military and naval stations in England and Ireland were first suspended in 1883, and afterwards finally repealed in 1885, steps were taken to ensure their repeal in all those British possessions where they were in force. These Acts, which are better known as the Contagious Diseases Acts, were passed in 1864, 1866 and 1869. They were not passed without opposition, but this never assumed formidable proportions until it was proposed to extend them generally throughout the kingdom. Then an opposition arose which has continued ever since; and even now, after the Acts have been repealed for years, their opponents appear to be ever on the alert to prevent any attempt to revive them or any measures which apparently bear a resemblance to them. Thus attention has been of late years strongly directed to the Indian cantonments, where, even after the repeal of the Acts, efforts were made by the cantonment officials, and especially by the medical officers, to prevent as much as possible the ravages which venereal disease, if wholly unchecked, might be expected to cause under such circumstances as prevail in a hot country, and amongst such a class as that from which native prostitutes are drawn. The result was the passing of the following resolution in the House of Commons on June 5th, 1888: "Any mere suspension of measures for the compulsory examination of women and for licensing and registering

prostitution in India is insufficient, and the legislation which enjoins, authorises and permits such measures ought to be repealed." In accordance with this resolution the Cantonment Acts were repealed, and the Cantonment Act Regulations were understood to be suspended; but a new Cantonment Act (xiii. of 1889) was passed, which, although it does not mention brothels or prostitutes, gives the Government power to make rules for "the prevention of the spread of infectious or contagious disorders within a cantonment, and the appointment and regulation of hospitals." It provided that if the medical officer of a hospital certified to the commanding officer of a cantonment that any person who was suffering or believed to be suffering from any infectious or contagious disorder refused to go to the hospital or, being in it, left it uncured, the cantonment magistrate might order such person to remove from the cantonment within twenty-four hours under a penalty of fine or imprisonment. Those who are acquainted with cantonment life know that such a rule was reasonable; but as it included measures against venereal diseases exception was taken to it, and Messrs. STANSFELD and STEWART, two members of the House of Commons, in a correspondence with Lord CROSS, who was then the Secretary of State for India, pointed out certain sections of the Cantonment Acts which in their opinion violated the resolution of the House of Commons before-mentioned, and they insisted that all such rules should be repealed. In reply Lord CROSS defended the action of the Indian Government, and the concluding sentence of his letter was as follows: "With regard to the suggestion in your letter that a system of compulsory examination may be again set up and that certificates of health will be given, or licences to prostitutes to resume their vocation, the Secretary of State can see nothing in the rules to lend any colour to such an insinuation, and he is unwilling to attribute to the Government of India an intention to evade or to allow any of its officers to evade the explicit instructions which he has issued, unless some solid ground can be afforded for such an accusation." On June 2nd, 1890, the General Assembly of the Free Church of Scotland adopted a memorial to the Secretary of State for India protesting against the new Cantonment Act and pointing out that the Indian Government had disregarded the resolution of Parliament and Lord CROSS's own instructions in a despatch of May, 1888. Notwithstanding the fact that these allegations were denied with an expression that the Commander-in-Chief "desires to strongly repudiate what he considers to be most unfounded allegations," they were repeated, and a Departmental Committee was appointed by Lord KIMBERLEY, the present Secretary of State for India, on April 7th, 1893. It consisted of the following members: Mr. GEO. W. E. RUSSELL, M.P., Under Secretary of State for India, chairman; the Right Hon. JAMES STANSFELD, M.P.; General Sir DONALD M. STEWART, Bart., G.C.B.; Sir JAMES B. PEILE, K.C.S.I.; and Mr. H. J. WILSON, M.P.; with Major-General O. R. NEWMARCH, C.S.I., as secretary. Their sittings took place on the 11th, 14th, 15th, 18th and 21st, when the evidence of Mrs. ANDREW and Dr. K. BUSHNELL and that of Mr. JOHN HYSLOP BELL, J.P., of Darlington was taken. The two former are American ladies, who in 1892 visited some of the military cantonments in India for the express purpose of making inquiries upon the subject matter in question. Mr. BELL, who is a journalist, had also visited two of the same cantonments and two others. Their evidence was forwarded to the Indian Government, who appointed Mr. DENZIL IBBETSON, Deputy Commissioner; Surgeon-Colonel CLEGHORN, Inspector-General of Civil Hospitals; and Mr. MAULVI SAMI-ULLAH KHAN, late District Judge, as a Commission to inquire into the working of the Cantonment Regulations regarding infectious and contagious diseases. The Commissioners were accompanied by Major W. B. WILSON of the military department of the Government of India, who was appointed to attend the Commission and to examine witnesses on behalf of the military authorities. Their report is a most valuable document, showing how thoroughly exhaustive their inquiries must have been. Whilst limiting these more especially to Amballa, Meerut and Lucknow, they deal with the subject of prostitution in India in its general aspects, and particularly with reference to prostitutes in cantonments. The missionary ladies succeeded in finding that at some of the stations the rules had not been completely enforced. Lord ROBERTS, whilst regretting this and apologising to the ladies, observes: "In doing so I would remark that I think it would have been better if the missionary ladies had been commended to the care of the authorities in India. We could have assisted them to carry out the work on which they were engaged; omissions and shortcomings would have been remedied at the time; a great deal of unpleasantness would have been avoided; the ladies themselves would have found their task considerably lightened; and there would have been less chance of their drawing wrong deductions from some of the circumstances which came under their notice, as in sundry instances they would seem from Mr. IBBETSON'S Committee's report to have done. This was owing, no doubt, to a want of knowledge of the language and of the habits and customs of the people of India." As has been more than once stated in THE LANCET within the last few years, prostitution in India is totally different in all its surroundings from what it is in England. The Indian girl does not begin her career of prostitution as a cast-off victim of seduction, or as the decoyed and drugged inmate of a brothel, or in any of the other phases which are known in this country. She is born to the life, and no other is open to her. Again, in dealing with Indian natives it is absolutely necessary to preserve such a bearing that the women who are questioned shall have no idea of what answer the questioner wishes to have. For want of these and other details a picture was presented which is thus graphically described in the concluding paragraph of the Indian Commissioners' report: "A picture has been suggested, if not actually drawn, of trembling groups of miserable women, pent up within high walls and guarded gates, the ticketed and numbered subjects of the soldiers' lust, their scanty earnings limited by authority and accompanied by constant brutality and ill-usage; themselves enslaved by debt beyond all hope of escape to the custodians whom their gaolers have set over them; released from their confinement only in order to be subjected to the unspeakable indignity of personal examination, or if found to have been diseased by the men for whose use they are reserved to be detained in a hospital as well as guarded at their homes; condemned to drag on a hopeless life of abject poverty and degradation, of shame and self-abhorrence, of futile yearning for escape, till

fading charms cause their rejection as articles no longer serviceable, or speedier death brings release. For such a picture, or for any portion of such a picture, we find no shadow of foundation."

Lord ROBERTS, Lieutenant-General CHAPMAN, late Quartermaster-General in India, Mr. IBBETSON and Surgeon-Colonel CLEGHORN were examined before the Departmental Committee, and their evidence is as interesting as it is valuable. Mr STANSFELD told Mr. IBBETSON and Surgeon-Colonel CLEGHORN that he and the other members of the Departmental Committee considered that their report was an extremely able one, though it showed many inaccuracies in the evidence given by the missionary ladies. As might have been expected from the peculiar composition of the Departmental Committee, its members differed and two reports were drawn up; one was signed by the chairman, Mr. STANSFELD and Mr. WILSON, the other being signed by General Sir D. M. STEWART and Sir J. B. PEILE. The former expressed an opinion that a system and incidental practices had existed from 1888 to 1893 which did not accord with the accepted meaning and intention of the resolution of the House or Commons. The two members of the Committee who were better qualified to form an opinion and to give a correct judgment on the various points which were submitted for their consideration did not agree with this, and by their report they show that everything had been done by the Indian Government to carry out the resolution of the House of Commons in the spirit as well as in the letter.

BEFORE the recent Sanitary Congress at Ayr the medical officer of health for Stirlingshire called attention to some important matters relating to the port sanitation of the two principal commercial gateways of Scotland—the estuaries of the Forth and the Clyde. It seems that there is no legislative provision in the northern kingdom for the formation of combined port sanitary authorities as in England. On the Clyde the chief Customs station is at Greenock, considerably below Glasgow. Opposite Greenock, and under the charge of its sanitary authority, is a mooring place where all vessels passing up the river are visited by the Customs officers. As a result, Greenock, though a much smaller port than Glasgow, has been responsible for the management of all infectious cases belonging to vessels merely passing the town and having nothing to do with its own trade. It has had to provide for medical inspection, disinfection, hospital accommodation &c., without receiving any contribution from the sanitary authorities, whose port work it has to this extent been vicariously carrying out. With us in the south port authorities complain bitterly that the whole country does not share in the outlay involved in the maintenance of the first line of defence against cholera, but Greenock seems to have been subject to even a worse grievance. Recently it sought relief by promoting a private Bill in Parliament conferring on it a right of assessment over the various public bodies in question; the proposed remedy, however, was itself objectionable, and a compromise was arrived at by which, whilst no inspection fee is allowed, a sum of £12 is payable for each case removed to hospital from any ship bound for the higher ports. We agree with Dr. MCVAIL in thinking that it would have been much better had a combined port district been formed for the whole river, as appears to have been suggested by the central authority several years ago.

On the Forth, which, as regards cholera, is of even more importance than the Clyde, there exists a most dangerous and wasteful subdivision of sanitary work. The firth is bordered by some half-dozen separate counties, containing amongst them a large number of harbours, most of which do only a small foreign trade. The great majority of the harbours are situated within small burghs, each appointing its own sanitary authority, not only for its land area but for its harbour. Where the harbour is not within a burgh, the sanitary authority consists of the district committee of the county council, whose public health interests are almost entirely inland. On each authority, whether large or small, urban or rural, which possesses a harbour, the Board of Supervision has no choice but to impose the duty of making complete arrangements for the prevention of cholera or other infectious disease. It is obvious that in the case of the smaller burghs the obligation must be either more or less neglected or must be fulfilled at a cost out of all proportion to the valuation of the districts assessable for the purpose. The need for a new Public Health Act for Scotland has been repeatedly urged in the columns of THE LANCET, and when it does come to be passed, one of its most useful features will no doubt consist in the removal of the disadvantage under which sanitary authorities at present rest with regard to combination for the purposes of port sanitation. Meanwhile, not only the population bordering on the Forth but the whole country runs a certain amount of risk owing to the want in Scotland of those facilities which we in England have so long enjoyed.

Annotations.

"Ne quid nimis."

THE LONDON COUNTY COUNCIL AND CHOLERA.

THE medical officer of health of the county of London has presented to the London County Council a short report on the action taken by his department in connexion with cholera during the recess of the Council. This consisted, in the main, of arrangements made with Dr. Klein for the bacteriological examination of material from suspected cases of cholera and of inquiry into the circumstances of alleged cases of cholera by the Council's officers. A discussion followed the presentation of the report by the chairman of the Public Health Committee, in the course of which it was contended by Dr. W. J. Collins that Dr. Klein's attitude towards the comma bacillus as a cause of cholera made it undesirable that he should be employed in this capacity, and that the work of bacteriological examination ought to be undertaken by the medical officers now in the service of the Council. On the other hand, it was urged by Dr. Longstaff that it was desirable that the arrangement which had secured for the Council the services of a bacteriologist of recognised eminence such as Dr. Klein should be approved, and this view was finally adopted by the Council. The Council's medical officer of health also reported that, a case of suspected cholera having been admitted into one of the general hospitals in a street cab, it was desirable that, as was already done in many hospitals, the number of each

cab bringing patients to these institutions should be taken. He had, therefore, addressed a letter to institutions of this class and had received many favourable replies. We note with satisfaction the willingness of the authorities of general hospitals to take this precaution. The difficulty of finding a cab which has been thus used is obvious, and it might easily before discovery have been employed for the conveyance of other persons.

CRIME AND ITS TREATMENT.

THE information contained in a report recently issued by the Commissioner of Metropolitan Police, however satisfactory as affording guarantees of order and security, is hardly such as to encourage believers in an earthly Utopia. The fact that we have in constant service within a radius of fifteen miles of Charing-cross a force of some 12,000 men does not seem to be in any way remarkable when we consider the extent of its field of operations and the fact that during 1892 the total number of persons apprehended for various offences was 84,922. We regret to add that there has been an increase in the amount of crime generally, as compared with that reported for the previous year, and that this, moreover, has not been limited to merely trifling misdemeanours. The number of certain graver offences has increased likewise. In the circumstances we are tempted to inquire whether some other means of cure should not be sought to aid the usual processes of law. Some such means we know are already in operation, and it is doubtless owing to the influence exercised by education and occupation that the average of criminality during the past three or four years, taken together, is comparatively low. That much, however, remains to be done is clear from the report before us. The case of the young calls for particular attention. There can be no question that in their case industrial and truant schools are exercising an effectual preventive influence, and that the extension of temperance principles is another auspicious factor in the prevention of crime. Most of us, again, who have followed the course of recent industrial struggles will allow that they must exercise a considerable, if only a temporary, effect upon the moral character of any age. They have thus acted upon our own, and the fact is one which ought to stimulate the energies and regulate the zeal of any who are charged with the adjustment of trade disputes. Finally, we must not forget that, whilst we know not of any criminal constitution, there is such a thing as a degenerate physical type, capable, indeed, of improvement under wholesome conditions of life, but which without these becomes the fruitful soil of moral weed-growths. It is clear, therefore, that whilst by means of police we must, and fortunately can, control the evil wrought by moral depravity, we must, in order to prevent this, associate with such control other and more purely remedial agencies.

THE WATER-SUPPLY OF HAMBURG.

DR. WALDO, the medical officer of health of St. George-the-Martyr, Southwark, has as one of the results of his annual holiday, presented a report to his sanitary authority, upon a visit to the new filter beds which have been recently constructed at Hamburg. Dr. Waldo was well fitted to compare the past condition of things with the present, since he resided in Hamburg for six months prior to the outbreak of cholera there last year. The new filtering arrangements consist, it appears, of four settling reservoirs, and eighteen filter beds. These latter contain a thickness of no less than three metres of carefully washed sand which is taken from the bed of the Elbe from above the gravel and pebbles. This is certainly a very exceptional depth of sand and is considerably in excess of that found in most of the filter-beds in this country. It would have been of interest in this connexion had Dr. Waldo included in his reports details as to the rate of filtration and the frequency with which the materials of the filter-beds are changed, more especially as we might expect that in Hamburg Professor Koch's interesting discoveries as regards the action of the film formed on the surface of the sand would have received practical application. Anyhow, Dr. Waldo seems to have been so far satisfied with the processes adopted and with the appearance of the filtered water that he fearlessly sampled it. The Hamburg water is, Dr. Waldo informs us, to be shortly subjected from time to time to bacteriological examination, and it would certainly be well if this action on the part of the Hamburg authorities were to be more widely followed in our own country. It is only by this means that it is possible to arrive at a satisfactory notion of what amount of germ filtration filter beds are effecting. It is of course impossible to lay down any general rule as to the cleansing of filters. Each corporation or water company must determine by experiment the standard of its own water, and the methods to maintain that standard. In spite of the satisfactory filtering arrangements described by Dr. Waldo, he is of opinion that Hamburg will always be liable to epidemics of cholera until the city is supplied with a pure and plentiful water-supply from some uncontaminated source, such, for instance, as Holstein. He thinks, too, that there is still some risk of contamination from the use of the old service pipes, and suggests that any bacteriological examinations which are made should be of the water drawn from the house taps, rather than of that which has but just emerged from the filter beds. The question of cleansing or disinfecting service mains after an epidemic is a difficult one, and has, we believe, recently caused one of our own sanitary authorities considerable anxiety. Dr. Waldo, though satisfied with the filtering arrangements, appears to have discovered in Hamburg itself cisterns in dark, unventilated water-closets supplying water both for drinking and flushing purposes.

THE REMOVAL OF HUMAN REMAINS FROM ANOTHER CITY CHURCH.

IN the *City Press* of the 30th ult. there appeared an interesting account of the removal of the bodies buried under the church of St. Martin, Ludgate. The description is given under the heading, "A City Charnel House; a Visit to St. Martin's, Ludgate." The experiences at this church add another to the many illustrations already given of the dangers of burying the dead underneath churches and in close contiguity to dwelling-houses occupied by the living. It appears that before the church was closed and whilst services were still being conducted within its walls an unpleasant smell had been noticed which was more marked and noticeable during the winter months, when the stove which warmed the church was alight. When the church was dismantled for repairs the architect thought it advisable to dig down a few feet to satisfy himself that the pillars supporting the roof were substantial. When the workmen had dug to the depth of eighteen inches they came upon a heap of coffins with a mass of remains. Then, as was mentioned in THE LANCET of July 15th last, the sanitary officials intervened and obtained an injunction preventing any further restoration until all human remains had been removed from beneath the church and from the adjacent vaults. This has been to a great extent accomplished, and the previous condition of the church may be judged from the fact that the remains removed occupied 260 boxes. These have been deposited in Woking Cemetery, whither will also be sent the contents of the two vaults. Besides the bodies in the aisles there were, it appears, under the floor of the vestry room some hundreds of bodies that had been buried without coffins of any kind; they had apparently been buried indiscriminately

and without the slightest care. It has been ascertained that in 1665, the year of the Great Plague, there were buried in this church 196 bodies, the greater number of which were probably those of victims of the fell disease. It is only too well known that they were buried in pits shortly after death, with very short funeral rites and often none at all. To make matters worse at St. Martin's the main drains seem to have been connected with this pit, thus forming a huge cesspool of putrefying humanity.

THE CHURCH CONGRESS AND SANITATION.

THE fact that prominent members of the Church are more than ever concerning themselves with the temporal as well as the spiritual interests of the people must be regarded as a wholesome sign. The clergy appear to be throwing off the shackles which have hitherto for the most part bound them and to have begun to recognise that their duties as teachers do not end in attempts to solve abstruse points of doctrine or to decide on preferable modes of worship—matters which are of interest only to metaphysicians or formalists,—but embrace questions which have to do with the present life as well as the next. Thus the most effective and economical method of disposing of the dead was one of the topics brought under the notice of the Congress by a sermon preached by the energetic hon. secretary of the Burial Reform Association, who, whilst advocating the "earth-to-earth" system, was willing to admit that under certain circumstances cremation might be advisable. This matter, however, has from time to time been so fully discussed in the columns of THE LANCET that we mention it here *en parenthèse*. Other questions which were brought before the assembly were the value of skilled nursing, the duty of the State to habitual drunkards, and the importance of free ventilation in public buildings—the last-mentioned question being one on which persons in general greatly need further enlightenment. To this end was directed an appeal made by the Dean of Manchester, who urged all who had influence to do their utmost to secure for the working classes fresh air, pure water, and wholesome dwellings. He said it was the small-property jobbers who acted as the great obstructors of sanitary reform.

THE PRICE OF HUMAN LIFE IN ITALY.

DR. GIUSEPPE LEGGE, one of the youngest, but also one of the ablest and most accomplished, officers of hygiene in Rome was returning one night in July last to his apartment on the third floor of No. 499, Corso. A studious man, of blameless character, and pleasant-mannered with all who came into daily contact with him, he was set upon from behind at the moment when he had reached the first landing, stabbed first in the back and then over the region of the heart, left for dead, and ultimately removed to the San Giacomo Hospital hard by, where, after living long enough to give a brief but lucid narrative of the circumstances under which he was attacked, he expired on the following day. The assassin was one Egidio Tognetti, a *cameriere* or waiter, the lover of one Giuditta Schiavi, a young woman employed at the same house with whom Dr. Legge had exchanged a few words, as was his wont with all whom he happened to know, just as he was ascending the first flight of stairs. Shortly afterwards Tognetti, in a fit of jealousy, assailed him, as we have seen, from behind and murdered him. There was no doubt that the deed was premeditated, for Tognetti had been lurking in the courtyard of the house awaiting the practitioner's return; there is as little doubt that his jealousy was unjustified, for Dr. Legge's life was perfectly stainless, as witnesses in the house and throughout the city concurred in attesting. The case has just been tried before the ordinary assizes in Rome, and after full discussion by able advocates on both sides, after ample hearing of evidence, and after the judge's impartial summing up the jury, on the simple facts as above given, returned a verdict of "guilty, with extenuating circumstances," and Tognetti was sentenced to imprisonment for eleven years and eight months. Accustomed as Italians are to so-called "verdicts of the heart," this last one has raised a storm of indignation throughout the peninsula. The leading journals have taken it up, and one of them, the *Tribuna* of Rome, remarks: "The price of human life—perhaps because the progressive increase of the population is not balanced by corresponding means of subsistence—becomes singularly cheap in our country." Husbands jealous of their wives, years after the offence (when such there has been) is condoned, murder them and are very often acquitted. Lovers lying in wait in courtyards, suspicious of the inmates of the house, fall upon them and stab them to death, and are then sentenced to less than twelve years' imprisonment. What wonder if with these "verdicts of the heart" Italy heads the list of European countries for her homicides—5000 of her people every year being done to death by violence? What wonder if, the law having lost its deterrent force, private *vendetta* flourishes amongst her people as it did in the Middle Ages? Some twenty-five years ago, when the abolition of capital punishment was debated in the British House of Commons, Sir George Bowyer argued for its retention on the ground of its deterrent force, and he cited a case in point (curiously enough from Italy). A Neapolitan wanted to kill his wife, but death by the guillotine was still the penalty in that kingdom for such premeditated deeds; so he declined to effect his purpose there. Having ascertained, however, that the severest punishment for the crime in Tuscany was imprisonment for life, he took her to Florence and there despatched her. Since then all Italy has conformed to the Tuscan criminal law (at least in cases of homicide and murder), and the result is seen in such statistics as we have quoted and in such murders as this last one of an exemplary physician in Rome. "Si va perdendo in Italia," says the *Tribuna*, "la coscienza della giustizia" (in Italy the conscience of justice is getting lost), and it adds, with bitter truth: "È un paese prossimo allo sfacelo, quello nel quale si indebolisca od accenni a spegnersi quella fiamma" (that country is on the brink of collapse in which the flame of justice is enfeebled or tends to extinction).

OPERATIVE TREATMENT OF TUBERCULAR PERITONITIS.

IT has long been an acknowledged fact that cases of tubercular peritonitis recover spontaneously, especially those in which there has been considerable exudation, and a large number are now on record in which laparotomy has been performed with encouraging results. Two interesting papers have recently been published on the subject; one by Dr. Conitzer[1] and the other by Dr. Duran.[2] The former reports seven cases, all occurring in children, in which laparotomy had been performed. The ages of the patients varied from two to nine years. In four of the cases there was a considerable amount of fluid in the abdominal cavity, and the peritoneum itself exhibited numerous small tubercles both on its visceral and parietal surfaces. As is not uncommon in these cases, the general health of the children was fairly good. In the other three cases there was no fluid in the abdomen, there was more constitutional disturbance, and the intestines and omentum were matted together. The operation was simple and consisted of an incision through the abdominal walls, allowing the fluid to escape and, without further interference of any kind, closing up the wound. In all the cases the diagnosis was confirmed by microscopical examination. The four cases in which there was effusion all did well and the patients were discharged convalescent. Of the

[1] Deutsche Medicinische Wochenschrift, No. 29, 1893.
[2] L'Union Médicale, Sept. 30th, 1893.

other three patients, two died shortly after the operation, no relief having been obtained, but the condition of the third patient was more satisfactory, and four months after the operation was decidedly better, the pain and discomfort being less. Dr. Conitzer considers, therefore, that all forms of tubercular peritonitis may be relieved by operation, even when simple puncture has failed, but the best results are undoubtedly obtained in cases in which effusion has taken place. He would not advise the operation in advanced cases or in those in which there is marked tuberculosis of other organs. Dr. Durnn considers that the reason why cases of tubercular peritonitis do so well after laparotomy is because air has been admitted to the abdominal cavity and that consequently an irritative process is started, in the course of which the bacilli become surrounded by a capsule which gradually becomes cretified, so destroying the germs and their products. This theory certainly has the credit of not lacking in originality. Acting on this theory, he does not believe laparotomy to be necessary, but simply performs paracentesis, removes as much of the fluid as possible, and then injects air into the peritoneal cavity. The air is rendered completely dry and aseptic by passing it through suitable apparatus. He has tried the treatment in two cases. The first was a typical case of tubercular peritonitis; the patient was very ill and the prognosis was very grave. After withdrawing the fluid, air was forced in and the abdomen gently kneaded, so as to bring the air as far as possible into contact with the whole of the peritoneum. A light bandage was then applied and most of the air was driven out by pressure. After the operation the patient had a slight increase of peritonitis, but afterwards did well and was discharged convalescent. The second case was complicated with pulmonary tuberculosis, and still further by an umbilical hernia. The same method of procedure was adopted, and with the same success so far as the peritonitis was concerned. Dr. Duran is of opinion that this treatment is worthy of further trial and he believes that as it is so simple that it will eventually supersede laparotomy.

NEWFOUNDLAND DOGS ON THE SEINE.

THE author of "Rab and his Friends" should have lived to take part in the discussion now agitating municipal Paris as to the creation of a salvage corps of Newfoundland dogs on the banks of the Seine. On that silent highway multiplied traffic, increased population, and the manifold causes inducing *tædium vitæ* and its rude remedy of suicide are all tending to increase the number of deaths by drowning, insomuch that the traditional Service de Sauvetage requires an auxiliary. That service, admirably organised under the Préfet de Police, cannot, with all the will and means in the world, do other than often arrive too late for even the readiest of ready methods of resuscitating suspended animation. Valuable seconds, even minutes, are lost in "getting under way"; whilst the Newfoundland dog, as if inspired by the beautiful motto of the Royal Humane Society's house on the Serpentine, "Latent scintillula forsan," with his instinctive dash into the water and his equally instinctive preference in two or more drowning cases for that which is just disappearing below the surface, more frequently than not ensures a rescue. Like many another proposed innovation, this last one, now under discussion in Paris, has occurred to the popular mind before, and, indeed, was actually put into practice shortly after the Restoration of 1815. Louis XVIII. procured several hundreds of dogs from Newfoundland and posted them at suitable points on the Seine for the rescue of the drowning; but the system never had a fair trial, added to which were the complaints of the riverside householders that the baying of the dogs disturbed their night's rest and that by day the animals were frequently aggressive. The money difficulty also intervened—the dogs were expensive, 150 of them costing 18,000 fr. (£720) a year for their food alone—to say nothing of the fact that by some incredible oversight the two sexes were not represented in the 150, so that there was no reproduction of the breed. Now these blunders of the past can be avoided. It is proposed to house the dogs on rafts or barges far out in the river, so that their baying by night will not be heard or their aggressiveness by day be felt. Moreover, the proposed system is meant to supplement, not to supersede, the present Service de Sauvetage, which, under the able control of Dr. Voisin of the Salpêtrière, is trained up to the latest improvements of science in treating the semi-asphyxiated drowned. That service is strong in numbers, well provided with the most effective appliances, disciplined, as already stated, under past masters in the art of resuscitation, and relieved at such frequent intervals as always to be at the acme of its energies. It has a small steam launch at its disposal which adds to the aid already afforded by vigilant bargees or lightermen. But it is not without defects. Electric communication between the salvage-points and the central office does not always ensure the help or the appliances specially needed when every moment is precious. The telephone, incredible as it appears, has not yet been utilised, as it has long been by the fire brigade; but the initial problem, that of picking up and landing the drowning man in good time, is still unsolved. No better solution of this seems possible than that of invoking nature's salvage-corps—the well-placed, well-cared-for, and well-recruited service of Newfoundland dogs, whose exquisitely acute ears never fail to recognise, night or day, the convulsive movements of the drowning man in the water, whose swiftness in making for the victim is only equalled by their dexterity in seizing him at the safe point, and whose "bee-line through the water" to the landing-place puts him under the resuscitator's hands in time for the latter to utilise the feebly flickering "scintillula" before its irrevocable extinction. So it is to be hoped that at the Prefecture of the Seine the formation of a salvage corps of Newfoundland dogs will soon be an accomplished fact, and that its services will not be neutralised or diminished by the mistakes committed by its promoters at the Restoration.

THE DEGRADATION OF MODERN ATHLETICS.

WE are so firmly convinced that the reasonable pursuit of athletics—that is, a pursuit that makes only such demands upon the time and health of its votaries as they can afford to honestly give—must work for good amongst all classes that we are very sorry to have to endorse the strictures which have lately been published upon the tendencies of certain modern athletes. The athlete in England has hitherto enjoyed a high reputation for purity of motive in his struggles. Many of us—probably those who knew least to the most marked degree—have believed that the chief reward in the athlete's eye was the sensation of honourable distinction in a competition promoted, secondarily perhaps, for the distribution of prizes or the gaining of challenge-cups, but primarily for the maintenance by healthy rivalry of a high physical standard. But coincidently with the enormous increase in the popularity of football and of public athletic meetings, there has come to light the existence of a widespread tendency to make the practice of athletics a source of livelihood, and some of the methods pursued with that intent go far to show that the healthy body of the athlete may envelop a mind in a considerable condition of moral disease. This much is generally conceded; what remains to be found is a remedy. It is not exactly our province to suggest expedients for the remedy of this state of affairs; but one thing seems to us certain—that the purification of the running-path and of the football field can only come about by the coöperation of the gentleman and the player. In cricket the paid and unpaid work together in harmony, and it seems to us that the same spirit ought to

prevail in other departments of athletics. Believing, as we do, that a certain amount of game-playing is a serviceable factor in English education, it is a matter of no little concern to learn that two important branches of athletics have been seriously impeached; and it will please us proportionately to hear that united effort on the part of some of the more distinguished athletic clubs is to be taken to remedy the evils.

TYPHOID FEVER AT WIGAN.

TYPHOID FEVER seems to have assumed almost epidemic proportions at Wigan, and the districts of Poolstock and Pemberton are suffering heavily from the disease. The cause of the outbreak does not seem to have been yet ascertained, but Mr. Barnish, the medical officer of health for the borough, appears rather to favour the theory that the epidemic is due to heavy rain following upon a hot summer forcing the ground air into the dwellings.

ANOTHER VICTIM TO DUTY.

ONE more name has to be added to the roll of those young members of our profession who have perished on the threshold of a promising career, whilst actually engaged in the attempt to save the lives of others. We regret to learn that Mr. W. F. Lucas, casualty medical officer to the Middlesex Hospital, died in that institution on Monday last from diphtheria contracted in the discharge of his duties. Several cases of that disease have been admitted into the hospital since its reopening, and Mr. Lucas, who was then acting as resident medical officer, seems to have been infected whilst administering chloroform to a case requiring tracheotomy. From the first the attack was a severe one, but as time went on, and the pharyngeal inflammation subsided, hopes were raised that he might recover. Unhappily towards the end of the week there were indications of an extension of the disease to the air-passages, although at no time was there any marked obstruction of the larynx. The sad event has cast a gloom over the opening session at the medical school, for the deceased gentleman was highly esteemed by the staff and his fellow students. A memorial service was held in the hospital chapel on the 12th inst., and was largely attended.

THE SANITARY CONDITION OF NORWICH.

THE city of Norwich, with a population of over 100,000, ranks as one of the thirty-three great towns of England, and as such its sanitary condition is a matter of considerable interest and importance to the community. This borough has recently been subjected to a critical inspection under the General Cholera Survey of Dr. S. Monckton Copeman, one of the medical inspectors of the Local Government Board, and in an interview which this gentleman subsequently had with the authority he discussed in detail the requirements of the district. It would appear from the report which has reached us, that the Canal Boats Act has not hitherto been properly carried out in Norwich; but we are pleased to see that, as a result of Dr. Copeman's visit, steps are being taken to carry the Act into effect. With regard to the water-supply of the city, it seems that, although the water provided by the water company is of very good quality, a not inconsiderable portion of the inhabitants derive their supply from shallow wells, which are often situated in very undesirable positions. As an example of the condition of these wells, it may be mentioned that of twenty-five samples submitted to Dr. Copeman, no less than sixteen apparently showed signs of pollution. This matter certainly requires the immediate and serious attention of the sanitary authority. With the sewage farm Dr. Copeman expressed himself satisfied, but he pointed out to the authority that in some of the houses he visited, the house drains were not properly disconnected from the sewers. The condition of the common lodging-houses, slaughter-houses and bakehouses, all seem to require more attention, and in order that this may be done in future, Dr. Copeman recommended that a permanent addition should be made to the inspectorial staff. In the course of his remarks Dr. Copeman paid a high compliment to the energy and ability of the medical officer of health of the borough.

THE DISTRESS AMONGST THE MINERS.

IT appears that we are now within measurable distance of the termination of one of the most disastrous strikes which has ever disturbed our island. Meagre and uncertain as this promise is, it will be received with awakened hope if not with satisfaction by all, and by none more heartily than by the large indigent class who have to bear the brunt in every industrial conflict. In the interest of these latter it is a subject for sincere congratulation that we have as yet felt so little the chill of approaching winter. If this alone were to be considered we might for a time regard without uneasiness the continued scarcity of our ordinary fuel. But it is not all. The distress already prevalent amongst the poor is not merely that of discomfort. Actual want, the effect of idleness enforced in other trades by the miners' disagreement, is making its mark upon the homes of the labouring poor. We have just received a copy of the summary of disbursements made during the past year by the East London Mission and Relief Work, together with an urgent appeal for contributions. Amongst the items detailed in it we observe a record of "six thousand sacks of coal." We need hardly impress upon all the necessity of helping forward works of this deserving character; they minister to no special section of the community; they are not open to the objection that they seek relief exclusively for the families of men out on strike who have adopted this course as a mere matter of business method and in whose case therefore the gifts of charity are but a begged form of strike pay. Their wider liberality refuses neither unionist nor independent worker, but admits all to the common privilege of poverty, and may therefore claim the right to bank and to distribute the generous trusts of an undivided humanity.

PHYSICAL CULTURE.

To lead forth with equal step the mental and the physical powers of the human being is education in the wide and only true meaning of the term. There seems to have been a propensity in all ages of the world compassed by history, speaking a little broadly, to exalt the importance of mental exercise over that of the body, or *vice versâ;* whereas the ideal man is the possessor of a sound mind in a sound body. The need of systematic physical culture as an essential element in education has until recently been largely overlooked in modern civilised communities. "Schooling" was thought to consist in cramming the immature brain with the thoughts and conclusions of others, and one who had successfully undergone this process was said to have received a "liberal education." It is satisfactory to note significant signs of a wholesome change being effected in public opinion on this matter. One of these signs is the issue of the second report of the British College of Physical Education. At the recent annual meeting, the President, the Earl of Meath, was able to congratulate the supporters of the institution on the success which had attended their efforts to diffuse a wider interest in the subjects which it was founded to promote. The College had been established, he said, for the purpose of forming a centre for all who were interested in physical education: it offered to its members all the advantages of coöperation and to the public a guarantee that registered members of the College were qualified to teach physical training on scientific lines with due consideration for the individual needs and capacities of their pupils. There cannot be a doubt that the object is a

worthy one and ought to command success—a result which, moreover, is likely to be assured under the guidance of the gentlemen whose names figure in the list of officers of the College.

THE CHAIR OF MIDWIFERY AT QUEEN'S COLLEGE, BELFAST.

DR. JOHN W. BYERS has been appointed to the chair of Midwifery and Diseases of Women and Children at Queen's College, Belfast. Dr. Byers' antecedents, both academical and professional, are such as to make him a worthy occupant of the chair lately filled by Dr. Dill, whose lamented demise it was our duty lately to record.

PROPOSED HOSPITALS EXHIBITION.

IT has been announced that active steps are now in progress for holding an exhibition in the West-end next year—the West-end seems to have a monopoly of such favours—the proceeds of which are to be devoted to the London hospitals. It is even said that an excellent site has been procured. The exhibition is to be divided into three sections—a professional section, a loan collection, and a trade section. The first section is to be reserved for exhibitors professionally connected with or interested in ambulance work, calisthenics, dentistry, hygiene, medicine, nursing, philanthropy and surgery. There will also be a naval and military section. The loan collection is expected to illustrate the history, organisation and development of London hospitals, as well as to contain drawings, pictures, photographs, relics &c. The trade section will be reserved for inventors, tradesmen &c., who are connected with the hospital system or with sanitary work. We cannot be insensible to anything likely to further the interest of the London hospitals. There are some things, however, which lend themselves fitly to exhibition, and some which do not. We cannot say that, on the face of it, hospitals belong to the former class of objects; and there is some danger nowadays of injuring hospitals by the very methods that are adopted to help them. Great care will be necessary to avoid such danger in this project. With these qualifications we wish well to this exhibition.

MORE CRUELTY TO CHILDREN.

IT was not to be expected that the curative effects of recent legislation in the interests of children should quickly become apparent. At all events the expectation, if indulged, would have been sorely disappointed. Success at the present stage is rather to be measured by another standard, that of increased knowledge and skill in the discovery and repression of cruelty, and especially in the treatment of its causes. Chief amongst these, we need hardly say, is drunkenness. Directly responsible for much, and indirectly for much more of childish misery, this familiar vice was in a recent judgment subjected, for a time at least, to effective control. The culprit, a mother drink-tormented and the torment of her children, was fittingly relieved at once from her temptation and her abused responsibilities by a sentence of some months' imprisonment. Have we not here a clue to the management of such cases; seclusion with restraint, but not in a prison? It is a singular fact that what passes for thrift has often gone hand in hand with drink as a cause of cruelty to children, yet it is one which must be admitted, for the insurance of infant life is in many cases but a profitable blind for the neglect of selfish parents. There is no doubt use as well as abuse in this matter. Unhappily, however, the conditions of such insurance are too often suggestive of, nay conducive to, its mismanagement, and we cannot well see how it can be otherwise, whilst poor parents are allowed, without question as to character, to become virtual investors in the death prospects of their offspring. The National Society for the Prevention of Cruelty to Children has of late been active in detecting cases of this kind. We notice a gratifying proof of its foresight and energy in the fact that it has in the instances reported succeeded in anticipating a fatal issue, and that the defaulting parents were tried and convicted.

ISOLATION ACCOMMODATION AT TEIGNMOUTH.

THERE are probably few conditions of things so disastrous to the true interests of public health as the endeavour on the part of sanitary authorities to produce a feeling of security in a district by the provision of a fever hospital lacking the attributes necessary for its success. Teignmouth, a watering place highly favoured by nature, is in a fair way of having its natural qualities much discounted by the want of foresight of the guardians of its sanitary condition. It appears that this sanitary authority have provided what they regard as a fever hospital; but the medical officer of health's annual reports show that not only is this structure utterly unfitted for the purposes it was acquired for, but that the medical profession of Teignmouth unanimously concur in the condemnation of it. The sanitary authority not only still persist in maintaining this structure, but they neglect, in spite of repeated warnings from Dr. Piggott, their medical officer of health, to make any provision for its management. As regards the necessity of providing nurses, they have apparently never troubled themselves, and when quite recently a schooner arrived in the harbour with a case of diphtheria on board the medical officer of health was placed in a position of helplessness, which should stimulate the authority into taking action against a repetition of the occurrence. As Dr. Piggott pointed out to his authority, there seems to be a sort of impression amongst the members that when a case of infectious disease occurs, "the doctor will see to it," and under this comfortable delusion of the supernatural powers of their medical officer of health they rest content.

LITERATURE AND MEDICINE AT EDINBURGH UNIVERSITY.

LAST week we were again reminded of the remarkable success which has marked the educational history of Edinburgh University during the past thirty years. The occasion was the annual dinner of the Manchester section of the University Club. Dr. Hardie, in proposing the toast of the evening, was, it will be believed, under no necessity to excuse his office, but, on the other hand, he suffered rather from the embarrassment of a superabundant justification. He was ably supported by a fellow *alumnus*, Dr. Conan Doyle, who replied in a neat speech. He recalled with evident zest the days in which he was himself numbered amongst the numerous medical progeny of his *alma mater*. He described in graphic terms the winding route by almost every path and alley of which medical practice led him to the flowery land of romantic literature. A ship's surgeon, an assistant in the country and in the slums, a general practitioner, and a consulting specialist without patients. At this latter point, he added, medicine gave him up. Then came the second marriage, but we suspect with an old love; at all events, we would so interpret the half-regretful retrospect into a free student life, beset and braced by the sharp northern wind, which Dr. Doyle, with Scott, proclaims to be the true atmosphere of poetic youth. Others of like talent and proved reputation, he reminded us, have shared the same vitalising breath, amongst them being R. L. Stevenson and J. M. Barrie; but it is probable that Dr. Doyle's peculiar genius owes more to its acquaintance with life as observed during his peregrinations as a medical practitioner of all ranks and conditions than to any of the advantages of his birth or country. Medicine, he said, has tinged his whole view of life, and we believe that he is right.

THE LATE HENRY SAVILE CLARKE.

THIS versatile and brilliant man of letters, who, on the 5th inst., "went over to the majority," at the early age of fifty-two, owed much to the medical studies which, for four years, he pursued at the Edinburgh School. He did not proceed to graduation, having satisfied himself beforehand that his true walk was literature; but he never regretted—nay, he always congratulated himself upon—his training in medicine as giving him a variety and a depth of knowledge which he turned to account in many ways. In numberless *vers de société*, full of genuine sparkle and of no less genuine kindliness of heart, he pleaded the cause of the profession, vindicating it from the assaults of the anti-vivisectionist, and even from such more insidious disparagement as that to which the late Poet Laureate lent himself in an ill-inspired hour. *Punch*, in particular, was the medium of many of his happiest effusions, amongst which its readers can hardly have forgotten the swinging verses wherein he saluted his *alma mater* on the occasion of her tercentenary festivities in April, 1884. He was an effective perpetuator, in that universally popular mentor, of the traditions of Albert Smith, of Percival Leigh, and even of Professor Edward Forbes—all of them representatives of the "medical interest" in its pages. Of his other work, in the drama and in the political press, we can now say no more than that it honourably maintained the kindliness and the culture of his contributions to the great comic journal. A selection from his society verses ought to secure him a permanent place amongst our minor poets, products as they were of a bright fancy, keen artistic sense, and genial humour.

OLD QUARANTINE LAWS.

A CORRESPONDENT of *The Times* calls attention to the "ridiculous farce" now being enacted at Millwall Dock. A Russian schooner, *The Ligo*, from Wilmington, with a cargo of resin and turpentine, has arrived at Denton, having had cases of yellow fever on board. The master died at sea and the second mate at Portland on the day of arrival. The vessel, after being detained at the Motherbank for twelve days, was afterwards required to be disinfected. The disinfection, which the officer of the Privy Council insisted upon, was the immersion of each cask of resin in a tank containing a solution of carbolic acid of the strength of 1 in 100. After the hatches were removed the turpentine was sprinkled with this solution. This procedure is due to the fact that the old quarantine laws are still in force in England, and the Privy Council, and not the Local Government Board, is the authority requiring their enforcement. As a matter of practice, the Privy Council never takes action in respect of any other disease than yellow fever, cholera being left to the action of port sanitary authorities, subject to the orders of the Local Government Board. The "vain chemical libations" of which we read are no doubt the performance of a mere rite, intended to solace the Governments of other countries, who might otherwise think that England was neglectful, and that, in consequence, London and its port ought to be regarded as infected with yellow fever. This conclusion would no doubt be prejudicial to English trade, and we trust, therefore, that the energetic action of the Privy Council will meet with the approval it deserves, and that its procedure will be made known to all whom it may concern.

THE ACTION OF ELECTRICITY ON MICROBES.

THE methods employed by M. d'Arsonval to determine the action of electricity on living matter are already known. The process consists essentially in passing a current through a solenoid, in the interior of which the substance to be experimented on is placed. MM. d'Arsonval and Charrin recently made some investigations as to the effects produced on microbes by the current, selecting for this purpose the bacillus pyocyaneus.[1] A culture of this organism was placed in the solenoid. At the commencement of the experiment a tube of nutrient agar-agar was inoculated with two drops of the culture. After the lapse of ten, twenty, and sixty minutes, respectively, further cultures were made on different tubes, which were all placed in an incubator for some hours. An examination of the tubes then showed that a luxuriant culture of the bacillus had grown in each; the forms of the colonies had undergone no change and were similar to those grown in control tubes; the pathological characteristics appeared also to be the same. The colour of the cultures, however, had been to some extent affected; for whilst in the first two tubes the organisms exhibited an intensely green colour, which was scarcely less vivid in the second than in the first tube, the colour in the third and fourth tubes was much less marked. These experiments seemed to show, then, that the electric current had some effect upon the organisms, although the action was not very marked. Further investigations in the same direction would be valuable and might possibly throw some light on the electrical state of the atmosphere as affecting the course of certain epidemics.

FOREIGN UNIVERSITY INTELLIGENCE.

St. Petersburg (*Military Medical Academy*).—Dr. Pasternatski, Extraordinary Professor, has been raised to the rank of Ordinary Professor.

Vienna.—Dr. Johann Fritsch has been appointed Extraordinary Professor of Mental Diseases.

DEATHS OF EMINENT FOREIGN MEDICAL MEN.

THE death of the following distinguished member of the medical profession abroad has been announced:—Dr. Tirifahy, Professor of Clinical Surgery in the University of Brussels.

IT is rumoured that the Apothecaries' Society are about to apply to the courts for powers to sell their Botanical Gardens at Chelsea, the money value of which has been fixed at about £30,000. Though the surroundings of the site have, by the lapse of time and the increase of population in the neighbourhood, undergone considerable modification, yet the removal of this historic garden would be a source of keen regret to multitudes who have profited by the instruction conveyed by its means.

THE inaugural meeting of the winter session of King's College Medical Society will be held on Friday, Oct. 27th, in the Marsden Library of the College, at 8 P.M., when Sir Joseph Lister, F.R.S., will deliver an address on "Essentials in Antiseptic Treatment." Tickets may be obtained at the hospital from Mr. W. Turner and Mr. R. H. P. Crawford, hon. secretaries.

THE annual dinner of the Medical Faculty of University College, Bristol, will take place at the Imperial Hotel, Clifton, on Friday, Oct. 20th, at 7 P.M., when Mr. W. G. Grace will occupy the chair. Sir Edward Fry will distribute the prizes during the afternoon preceding the dinner.

AT a quarterly meeting of the directors of the Naval Medical Supplemental Fund, held on Oct. 10th, Inspector-General T. Russel-Pickthorn in the chair, the sum of £40 was distributed amongst the several applicants.

THE Governors of Middlesex Hospital have decided, at a cost of £1500, to purchase a site of five acres at Clacton-on-Sea for the purpose of erecting a convalescent home.

[1] L'Union Médicale, June 8th, 1893.

THE Harveian Society will meet at the Stafford Rooms, Tichborne-street, Edgware-road, W., on Thursday, Oct. 19th, at 8.30 P.M., when Dr. J. Milne Bramwell will read a paper on Hypnotism, with illustrative cases. Being the first meeting of the session any medical practitioner will be admitted on presentation of his visiting card.

MR. F. C. Garland, L.R.C.P. Edin., M.R.C.S., of Yeovil, and Mr. J. A. Bright, M.R.C.S., L.S.A., of Glastonbury, are, we hear, amongst others, aspirants to the office of coroner for the North-eastern division of the county of Somerset, vacant by the death of Mr. Müller.

CHOLERA.

CURRENT NOTES, COMMENTS AND CRITICISM.

WITH regard to our having incidentally remarked last week that we had emancipated ourselves from a belief in "cholera clouds" and "cholera mists" as the frequent harbingers of a visitation of that disease, we did not, of course, intend it to be implied that we pronounced any opinion or judgment as to the possibility or probability of the cholera cause being air-conveyed or aerially distributed, for that opens out a much larger and more important question. What we simply intended to convey was that the causal connexion between the appearance of any particular cloud or mist and the appearance of any epidemic or outbreak of cholera rests upon no certain or sufficient evidence and is altogether too vague and indefinite to be reckoned within the category of science. Innumerable outbreaks and epidemics of cholera have occurred where no such phenomena have been observed. In a world where, according to the creed of some, everything is possible and nothing is proved, it is not easy to disprove the existence of a possible connexion between mere coincidences of phenomena of any kind, but the pursuit of such hypotheses in our present state of knowledge is altogether too nebulous and unsubstantial to afford any foothold for scientific investigation. It seems, however, to suggest a line of inquiry beyond the limit of the terms in which it is comprised. The influence of meteorological conditions on the prevalence of epidemic diseases is unquestionably a legitimate line of scientific study which may hereafter become fruitful of results that are not now dreamt of. The influence of season in connexion with epidemic cholera in India, for example, is so great that it may almost be said to override all other influences; there is a kind of regularity about the progress of an epidemic in its relation to time and space in that country which has not escaped the attention of scientific observers and has led even ordinary observers to apply the terms of "spring" and "monsoon" cholera to its manifestations. Professor Pettenkofer also strongly directed attention in 1884 to this factor in connexion with cholera in Prussia from 1848 to 1860 as a fact which is independent of any theoretical consideration and must be taken into account. Moreover, it is well known that one of the most original and ablest authorities in India, who had unrivalled opportunities for studying the subject of cholera from the standpoint of the epidemiologist, put forth the theory, and adduced a large body of evidence in support of it, that cholera is earth-born and air-distributed; that the cholera-cause, be it what it may, having no locomotive power in itself, has to depend for its movement on a vehicle and an extraneous force, the vehicle being moisture and the force being wind, and that it is carried by monsoon influences from the endemic area comprised in Bengal proper and distributed over other geographical areas, there to manifest itself as an epidemic, or not, in due season, according to the presence or absence of favouring conditions of season, soil, and climate. According to this view Indian cholera has a definite and demonstrable geographical position; it manifests itself in a succession of outbreaks interrupted by periods or seasons of dormancy; in its epidemic and invading form it re-appears through a succession of years, representing its normal life history as an epidemic, each one of which is but a repetition of its predecessors, the parallels between different epidemics being conterminous with and as fixed and stable as the recurrence of the meteorological conditions of the area invaded. There is no need to enter into any discussion as to the truth or otherwise of this theory, which has been misunderstood and made the subject of strong contentions; but the reports and works in which it was set forth nevertheless contain a mine of facts and information bearing upon the subject of cholera. Of one thing there can be no doubt, that their author rendered to the Government of India the most important aid and service by the ability he displayed in making a number of forecasts in regard to the prevalence of cholera which were verified by the subsequent course of events.

We can only advert to this subject very briefly at the present time; indeed, it would be impossible to discuss it within reasonable limits, but we venture to say that, as far at any rate as India is concerned, no one altogether ignorant of what has been published on the subject is competent to pronounce an opinion with regard to it.

But India is India, and not Europe; it is held to be the breeding ground of cholera, the climate where it is indigenous, where the conditions are altogether special, and where the natural agencies in operation are such as to render all deductions derived from that country inapplicable to this, in which the conditions are altogether different and where cholera is regarded as an imported exotic, the germs of which are, it is alleged, carried exclusively by human beings, and where a case or an outbreak may develop and widen into an epidemic at any time when all the surroundings happen to be more or less assimilated to those which existed in the land where cholera had its birth and whence it came.

The history of cholera as an epidemic has to be studied from the aggregate of a large number of authenticated data. A local observer, looking at local data only, will, it is contended, fail to perceive the whole truth, because the local outbreak which he is observing is merely a part, and possibly a very small part, of a general epidemic. The epidemiologist looks to general conditions and natural agencies in order to search out and formulate some general law or primary fact, and, whilst not denying that cholera may be transmitted from man to man, he holds that this means of transmission is of secondary importance in the spread of cholera as an epidemic, and he brings together and correlates a large number of facts about cholera in its relation to time, space, and environing conditions in support of his contention.

The nearer the observer is to the endemic area of Lower Bengal, the less apparently is contagion thought of, the less are man and human agencies regarded as the sole manufacturers and disseminators of cholera, and the greater is the belief in the influence of natural agencies outside man; but in order to trace the progress of disease it must be studied on a small scale, where the number of possible factors is reduced to a minimum. It is next to impossible to trace the course of an epidemic or to follow the progressive steps in the spread of contagion in a large city, whereas it may be comparatively easy to do so by following the course of a carrier's cart through a number of villages. Notwithstanding that maps and plans of past epidemics and the study of natural conditions and of parallels and records of recurrences of phenomena, with dates and statistics, may be most helpful in informing us how cholera comports itself on a large scale and in warning us as to what we may expect, they give us little or no clue to the discovery of its precise cause of the

conditions which localise it, or of the methods by which it spreads amongst individuals or in a community.

The localising influences of place and position, with their concomitant conditions, have been strikingly exhibited in this as in previous epidemics. We have already called attention thereto in connexion with the frequency with which lunatic asylums, gaols, hospitals, and similar communities have been attacked. In addition to those already mentioned, we learn from Rome that at the lunatic asylum at Nocera there have been 78 cases and 38 deaths from cholera since the 20th ult. In 1881 some troops were attacked in barracks at Meean Meer; they were removed and the disease ceased. Twice they returned to the cantonment and twice they were again attacked. The same thing happens in overcrowded ships; cholera breaks out, the ship is not allowed into any port, and consequently it cannot be cleared of its crew and passengers and the death-rate is enormous. Setting aside the impracticability and proved futility of cordons and quarantine, the extreme inhumanity of keeping people within an infected area by the rigid enforcement of such methods does not seem to strike anyone. We are not saying, of course, that the passage of a crowd of cholera-stricken pilgrims should not be diverted from a town or village, or that the sick of a cholera-stricken ship should not be removed and isolated and the vessel cleansed, for that is a necessary and proper course to follow in the interest of all concerned, and especially in that of the sufferers themselves. As to outbreaks in lunatic asylums and gaols they are generally of the sudden and explosive kind and usually do not last long. During a great number of outbreaks in the gaols of India about half the number of deaths occurred in the first seven days and from 80 to 90 per cent. in the first fourteen days. A building may itself become infected and the outbreak may consequently be an unduly prolonged one if its inhabitants continue to occupy it.

As we have already said, the movement of troops or of a community of individuals for even short distances has been repeatedly followed by the best results, but not invariably so. The fact is that an outbreak of cholera may occur in two forms: in one the incidence of attack is more or less general—in community; in the other it is sporadic—when one or more individuals of the community are independently attacked, and this is frequently followed by a brief interval of some days before the disease extends itself, and if the site or the buildings are evacuated and the community is split up and dispersed during such interval further progress of the disease may be sometimes altogether averted. In the first instance, however, the disease will continue to manifest itself for some days in exactly the same manner as if the people had remained and not been moved. There was a striking illustration of this in the case of a regiment at Peshawur some years ago. Cholera suddenly appeared in the barracks occupied by it and half the regiment was thereupon marched out to another station some miles from that station. For a time the disease prevailed qually as regarded attacks and deaths in the two wings of the regiment—viz., in that which had been removed and in that which had remained—but, whilst the disease disappeared altogether in the former after a short period, it continued to prevail in the latter—that which remained behind.

It has been suggested that the present epidemic of cholera in Russia has been greater and more fatal in consequence of the previous famine in that country. Such would not appear, however, to have been the case; and it may be mentioned here that famines in India, when they are attributable to absence of rain, as they often are, are not necessarily followed by cholera; indeed, it is generally the reverse. The famine district of 1861, where no rain fell in 1860, had no cholera, although that disease was prevalent eastwards; but soon after the first rains in Delhi in May, 1861, cholera appeared. The monsoon, however, when falling in the endemic area of Bengal, usually extinguishes cholera there, whilst it has exactly the opposite effect in the hot and arid soil of Upper India and the epidemic area.

With regard to the progress of cholera abroad, Russia continues to occupy the foremost place. The disease shows signs of abatement, but it appears, nevertheless, to have taken firm root in Russia and to have assumed an endemic character. More than forty provinces are infected, and although in about thirty of these governments the number of cases is relatively small—only amounting to 20 or 30 a week—the weekly bulletins of several other provinces, on the other hand, announce from 100 to 250 cases. Podolia is the province most affected, where the number of cases averages 1000 weekly, and Volhynia follows closely upon it with about 700 cases per week. As regards the intensity of the disease and the area affected there are indications of improvement in the last reports, whereas for several months past there has been but little variation in these respects, in spite of the sanitary measures that have been adopted. The official reports published at St. Petersburg on the 6th inst. show that in the capital 106 fresh cases and 38 deaths were returned between the 3rd and 5th inst. Twenty cases and 6 deaths occurred at Moscow between Sept. 30th and the 4th inst., whilst from the 24th to the 30th ult. there were 86 cases and 30 deaths at Cronstadt. At Warsaw, during the same period, 3 cases were reported but no deaths. The returns for the different governments from the 24th to the 30th ult. are as follows:—Grodno, 99 cases and 30 deaths; Lomsha, 445 cases and 211 deaths; Minsk, 69 cases and 26 deaths; Moscow, 52 cases and 34 deaths; Simbirsk, 104 cases and 43 deaths; Smolensk, 25 cases and 12 deaths; Siedletz, 4 cases and 2 deaths; Tula, 163 cases and 41 deaths; Kharkoff, 21 cases and 16 deaths; Nishni Novgorod, 33 cases and 16 deaths. Between the 17th and 23rd ult. 9 fresh cases and 6 deaths occurred in the government of Warsaw, and 118 cases and 68 deaths in Kasan. In Orel there were 127 cases and 56 deaths between the 17th and 30th ult., and in the province of St. Petersburg 112 cases and 50 deaths from Sept. 26th to Oct. 2nd.

The reports from Berlin are satisfactory as to the public health of Germany. The renewed outbreak which occurred this year at Hamburg—on a very limited scale as compared with that of last year—seems to have terminated, only a few cases having arisen in a sailing ship. A death in an imported case from Stettin is also reported from Niederkraenig, on the Oder. *The Times* of the 7th inst. contains a common-sense kind of letter on the prevalence of cholera in Hamburg in explanation and vindication of the action of the local authorities anent the leakage in the waterworks. It appears that Altona was not partly supplied from the Hamburg waterworks, as incorrectly reported. The pipes were laid for the purpose, but no water was supplied. The correspondent shares the opinion of many people in thinking that nowadays we go far too much into details in publishing cholera cases, and humorously calls attention to the superior management of these matters in France and elsewhere. "The French die of cholera nostras, the Danes of cholerine, and the Germans of cholera," which, he adds, they feel bound to announce to the world, to the great detriment of the material interests of the country. He quotes an extract from the *Berlingske Tidende*, a Copenhagen paper, to show that whilst they were ready in Copenhagen to receive and combat the expected visit of cholera they were really suffering from an epidemic cholerine disease which had been establishing itself amongst them since August last. The deaths from it mainly occurred amongst infants and children, of whom as many died in the course of six weeks as die of such diseases in ordinary times in a year. "Such a severe cholerine epidemical disease has never raged in Copenhagen before, and

the mild way in which this year's cholera makes its appearance in Europe leaves no doubt that the cholerine epidemic we had in the summer was a mild cholera."

Intelligence from Amsterdam of the 9th inst. shows that the epidemic is virtually over for the present in Holland. The fresh cases of cholera were 6 only and 5 deaths on the 6th inst., and at the latest date there were only 1 fresh case and 1 death reported in the whole of that country in twenty-four hours.

At Stettin 6 cases of suspected cholera occurred recently, 2 of which have since been certified as Asiatic cholera.

From Rome we learn that the public health of that city is satisfactory, that the disease is greatly decreasing at Leghorn, and that it still prevails at Palermo; but by the latest accounts it was somewhat decreasing there also, the fresh cases numbering 24 and the deaths 17 in twenty-four hours. The recent outbreak at the lunatic asylum at Nocera seems to have been a severe one; the mortality was great, but we are not told the number of the inmates of the asylum.

The epidemic in the district of Biscay, which had perceptibly abated at the date of the last reports, has of late remained stationary. The weather is described as being warm and rainy. The fresh cases range from 30 to 50 daily, and the deaths from 10 to 20.

From Paris we learn that some cases of choleraic disease still continue to make their appearance at Brest; 6 deaths occurred on the 5th inst., and on the 8th 6 deaths are also reported—3 in the naval hospital and 3 in the public hospital. Five fatal cases were reported on the 10th inst. M. Monod, at the International Sanitary Exhibition at Havre, advocated the abolition of quarantine and the substitution of inspection and disinfection at the ports of departure, and he dwelt upon the efficacy of this method at Havre last year, where during the cholera epidemic 639 persons left Havre and not one carried infection abroad.

Reports from Teheran show that cholera still prevails there. It was decreasing in the south, but spreading in the city where about 20 deaths occurred daily. The disease has broken out at Resht and at Sabzvar in Khorassan. As regards this country the main features which have hitherto characterised its spread still continue to mark its progress. The very severe and fatal outbreak of suspected cholera at Low Moor, near Bradford, in which 5 persons in one family died, either shows the effect of place in localising the infection and in affecting all who came within its sphere of influence or the spread of infection from person to person such as is rarely witnessed in cholera. The alleged cases at South Shields, at the Coton Hill Asylum, Stafford, at Liverpool and other places, as well as the recrudescence of the outbreak at Grimsby are very noteworthy. It is clear that the disease at these places must have closely resembled Asiatic cholera in its clinical features, and in some of the cases a bacteriological examination yielded results that were indistinguishable from those of that disease.

CHOLERA AT LEGHORN AND IN THE ABRUZZI.

(FROM OUR OWN CORRESPONDENT IN ITALY.)

LEGHORN completely lost its head under the recrudescence of cholera and scenes have lately been witnessed more worthy of a Neapolitan or a Sicilian harbour town than of the principal seaport of Tuscany. The population numbers 110,000, and of these about one-half are in "voluntary exile," leaving their poorer fellow-citizens to die of disease or hunger. "Livorno è in miseria"; commerce for the moment is dead, and, with few exceptions, those of the more highly favoured classes, to whom the cholera-stricken and the indigent have a right to appeal in their extremity, are conspicuous by their absence. Lack of moral support, such as the presence of its wealthier *concittadini* would give, has had its usual effects on the Livornese proletariat, and on Sept. 27th a collision occurred between it and the police which might have led to very serious results. Under the rooted belief that cholera can be dispelled by fire some of the more energetic of the people began to break up the doors of their houses, even the furniture within and the shutters without, to say nothing of what they could obtain elsewhere, and, having piled the fragments in the main thoroughfares, set them in a blaze. The fire brigade, already taxed beyond its strength by performing fatigue duty outside its proper sphere, did its best to extinguish these dangerous bonfires and in its efforts was supported by the police. Such interference, however, was indignantly and passionately resented by the people, who attacked both firemen and policemen from the windows, showering down bottles, earthenware missiles and other objects on to the devoted vindicators of public order. At one point there was a hand-to-hand encounter between the mob and the police, until, in self-defence and against overwhelming numbers, the latter had to use their revolvers. This, though unattended by loss of life or even injury to limb, soon put a stop to the riot, the ringleaders of which have been arrested. Leghorn is now calm and, thanks to the public spirit and courage of the Prefect (the Commendatore Giura), the Syndic (the Commendatore Costella), the Count and Countess Larderel, the Cavaliere Sansoni, and a compact body of philanthropic citizens, the efforts of the physicians have been so powerfully reinforced that the ravages of the epidemic from day to day are regarded with something like equanimity. A new lazaretto has been opened and, like the original one, is being effectively supplied with attendants and *matériel* from the hospital. Meanwhile the death-rate is decreasing. Last week the number of cases rose to as many as thirty-three in the twenty-four hours, with an immediate mortality of three and the death of thirteen others who had been previously attacked. Now the bulletin before me, dated noon of the 1st inst., announces three cases since the evening of the 30th ult., and a total of eight within the twenty-four hours and one death.

To my previous letter on cholera in the Abruzzi I have little to add. At Pescina of sixty cases in the last week of September about thirty died. The Red Cross, on the first appearance of the disease, did admirable service, but, on account of inadequate support and coöperation, had to be greatly reduced in *personnel*. The gallant Dr. Ambrogetti found himself in critical circumstances—without a lazaretto, without a "casa di osservazione." The patients had to be attended at their own homes, under every conceivable disadvantage; and to this service the physicians, already overtasked and short of *matériel*, were proving unequal. Now the more public-spirited of the community have come to the rescue. Dr. Ambrogetti has obtained his lazaretto, which within an hour admitted twelve of the cholera-stricken, and a beginning has been made with the "casa di osservazione." The Red Cross, rehabilitated and encouraged, has again resumed work, and calm and confidence have replaced the panic and despair of the first days. A "corpo sanitario" has been organised and has already done yeoman's service. So far the disease is being ably encountered, and the impression prevails that the worst is over; but whilst the lesson is still vivid in the popular mind no effort should be spared to place the water-supply and the hygiene of these backward Abruzzi towns and villages in something like a sanitary condition. At headquarters the evil is fully realised, and as I write the engineer Bentivegna has taken the initiative for supplying Sulmona, one of the most populous centres of that region, with an aqueduct to convey *acqua potabile* to it.

At Palermo, Naples and Rome the authorities are working with a vigilance and an effort proportioned to their ample means and their well-recruited medical staffs. In Rome, indeed, the lazaretto on the Aventine, at Santa Sabina, leaves much to be desired; but the epidemic has never proved severe enough to strain its resources beyond their compass. Florence still maintains its exceptionally clean bill of health, and, thanks to the vigilance of its municipality, is not likely to recede from it.

Oct. 2nd.

LATEST CHOLERA INTELLIGENCE.

Following the outbreak of infective diarrhœa at Grimsby, which was recorded in THE LANCET last week, it appears that from the 6th to the 9th inst. five cases of cholera have taken place, of which two have proved fatal. One case

occurred on the 10th inst. and another on the 11th. From Hull no cases have been reported. Dr. Klein's report on the examination of the material of the case which we noted from North Bierley last week states that bacteriologically it was not distinguishable from one of true cholera. At Ormskirk a death from diarrhœa took place, but Dr. Klein's examination has had negative results. A death occurred at Rawmarsh on the 9th inst., which has also been pronounced to be bacteriologically indistinguishable from true cholera. At Balby in Yorkshire a death took place on the 10th inst. from suspected cholera.

A further case of cholera took place at Newcastle-on-Tyne on the 9th inst. The material has been bacteriologically examined by Dr. George Murray, who has pronounced the case to be one of Asiatic cholera. A suspicious death was notified in London on Thursday morning from the Lambeth district and is at the time of our going to press under the investigation of the authorities of the London County Council. Dr. Bulstrode is also instructed to attend the post-mortem examination.

VACCINATION AND SMALL-POX.

DR. J. H. C. DALTON, a member of the Small-pox Hospitals Committee of the Metropolitan Asylums Board, contributes to the October issue of the *Medical Chronicle* a highly instructive paper based on the statistics of 1000 consecutive cases of small-pox treated at these hospitals from January, 1888, to April, 1893, a period, that is to say, before the disease became markedly epidemic in the metropolis. He deals with his facts, which are compiled from the carefully kept records of these institutions, in respect of the questions of primary vaccination, of revaccination, and of other preventive measures. The essay is one which demands careful study, and its appearance at this juncture is both timely and useful. Dr. Dalton takes as a measure of the severity of an attack not merely the mortality-rate but also the duration of the patient's stay in hospital, and has compiled his figures on this basis. He justly points out that there "is a great difference between cases where there is no evidence of vaccination at all and where there is a statement of vaccination but no marks are visible"; and he further takes into consideration those cases in which the severity of an eruption conceals the objective signs of previous vaccination. The cases are also analysed in respect to the number and quality of the vaccination marks. There were 85 deaths amongst the whole series—i.e., 8·5 per cent. Estimated by duration, the greatest severity of the attack fell at the two ends of life, and the mortality, both amongst the vaccinated and the unvaccinated, was almost *nil* between the ages of fifteen and thirty. "The cases in early life are almost all unvaccinated. Omitting five unvaccinated cases under three months, there are under five years of age 51 unvaccinated cases to 6 vaccinated, and whereas in the unvaccinated 23·8 per cent. died and the remaining cases had a duration of 47·2 days, there were no deaths in the vaccinated, and 28·5 days was the average duration of disease. As life advances the mortality in the vaccinated decreases, and also their numbers per year—indeed, it appears that small-pox ceases to be specially dangerous after the third year to children, there being after this period less than one death in ten. With the vaccinated the converse happens. Two cases occur between one and two years, two more between two and four years; then they are more frequent, and at about eight years become equal in number to the unvaccinated; at the same time they become severer. Under five years the 'average duration' is 28·3 days, between five and ten it is 29·8 days, between ten and fifteen it is 34·6 days, which is within one of the general average of all vaccinated, 35·5 days. As yet no death has occurred, the first taking place between twenty and twenty-five years. Under twenty years of age therefore we find no death amongst the vaccinated, with a high fatality amongst the unvaccinated, and at the same time the average duration of the disease is at least ten days less in the former than in the latter." Dr. Dalton is thus forced to conclude that "primary vaccination has a most powerful effect in early life, of preventing small-pox altogether, or, if it fail to do that entirely of causing the disease to be much milder and less fatal." He goes on to point out that the disease is uniformly mild between twenty and thirty years of age, amongst which group there was no death in the unvaccinated, and in the vaccinated the deaths were from 2 to 3 per cent. "Were it not that the average duration of the disease is higher in the unvaccinated, one might be tempted to think that the protection had not only worn off, but created a fresh susceptibility." From thirty years upwards the unvaccinated cases are very few and very severe, and the mortality amongst the vaccinated rises to 10 per cent. The general mortality for the unvaccinated is 22·1 per cent.; for the vaccinated 2·8 per cent. It is pointed out that the low general mortality may be in part due to improved treatment, in part to a milder type of disease. After dealing with the question of the number and quality of marks, he speaks of revaccination, and shows how in this group only those whose revaccination dated back for six years or more had the disease severely, and he infers that revaccination soon loses its power. He also discusses the effect of recent vaccination, and gives instances of concurrent small-pox and vaccination. We must content ourselves with citing the summary, which gives concisely the fruit of this elaborate study. It runs as follows:

"I believe, therefore, to have shown good cause for assuming: 1. That primary vaccination, successfully performed, is an almost absolute preventive of small-pox for a few years, and that in the few instances of small-pox that occur the attacks are almost invariably mild. 2. The preventive effect wears off to a great extent in a few years. After this time it is not unusual for vaccinated persons to take small-pox, but the severity of the disease is on an average much less than in the unvaccinated. 3. Good vaccination marks, except by affording better evidence of the fact of previous successful vaccination, are only superior to bad marks for a few years. After this time the important evidence is derived from the actual presence of marks and not their quality. 4. There is a slight superiority of three marks and over as against two marks and under, but the difference is not very marked, and similarly with regard to foveated as against unfoveated marks. 5. It is very probable that vaccination marks wear out in course of time. Good marks turn into bad marks and bad marks turn into no marks. Consequently, in the young, persons with no marks have in all probability never been vaccinated, but in old people many of the vaccinated will be in this class. (6) Revaccination acts like primary vaccination in that absolute immunity is procured for a few years only. After this interval the revaccination will have added nothing to a successful primary. (7) The protective power of vaccination does not reach its height for at least three weeks. If, therefore, exposure to small-pox infection takes place in less than a week after vaccination, small-pox may occur, though probably in a mild form. Even if, however, vaccination be performed just before the outbreak of small-pox, it is likely to be successful, and in this case will probably modify the disease. (8) Persistently unsuccessful revaccination denotes insusceptibility to small-pox, though one or two failures may be due to other causes."

Dr. Dalton adds some suggestive remarks upon the duty of the State in regard to vaccination. He points out that compulsory infantile vaccination, by rendering the type of small-pox mild, may not prevent, but promote the extension of the disease on account of the earliest cases of an outbreak remaining unrecognised; that persuasion should be used by vaccination officers, but not compulsion, and he rather cynically adds; "The wise will be persuaded, and these are they we wish to survive. The foolish will take the consequences of their own action." But in presence of an epidemic he thinks that well-regulated measures of isolation, disinfection, and vaccination (by persuasion) directed by a central authority would do much to banish small-pox. Without revaccination on exposure to infection no amount of primary vaccination can ward off an epidemic. He hesitates, however, to give this "authority" power to force a man to have his children vaccinated "if after all arguments he refuses." To this dictum we are forced to reply that the argument which will alone appeal to such a man is the disease or death of those whom he has neglected to protect.

THE MIDDLESEX HOSPITAL.

THE Middlesex Hospital, which has recently been reopened after having been closed for three months, is well worth a visit to see the great improvements which the governors have effected. The building dates from a period when hospital

construction was in its infancy, and consequently the arrangements compare unfavourably with those of modern hospitals, but notwithstanding the many difficulties inherent to the plan of the building the board with a single eye to the efficiency of the hospital have endeavoured with no small measure of success to make it a pattern institution. No one can fail to be struck with the comfort and cleanliness, not to say the beauty, of the wards and corridors throughout the building. The beautiful hard polished teak floors and the handsomely coloured walls, with their dados painted and varnished till they shine like mirrors, are excellent in appearance, and make the interior of the hospital very attractive.

An enumeration of some of the chief improvements may be instructive and interesting. First amongst them should be noted the fifteen wards in which new teak floors have been laid, the old boards having been removed, the space below thoroughly cleaned and the floor timbers washed with a solution of perchloride of mercury (1 in 1000). The floors of all the wards of the hospital are now entirely composed of teak, the surface of which is wax-polished. Last year two of the ward sculleries were refloored with teak and refitted throughout with teak dressers and lockers for the nurses and servants, and this year the remainder of the sculleries have been treated in the same manner. The baths, also, which were formerly in the sculleries, have been removed and new bathrooms for patients have been fitted up in the basement; portable baths on wheels are provided on each ward floor, with sinks for emptying them in the ward sculleries. The old grates in the wards have been removed and replaced by new ones made on the Pridgin Teale system. The backs and sides of these grates are made entirely of fire-clay, the only iron-work being the grating on which the fire is laid; there are no front bars. Under the grate is an ash pan, which is drawn out under the raised hearth or "front hob." The mantelpieces are made of enamelled fire-clay briquettes and have plain teak shelves. On one side of each grate is a recess, in which is placed an atmospheric gas burner for boiling water &c. The products of combustion are carried off into the smoke flue. By an ingenious contrivance the stove lights itself automatically by the weight of the vessel placed upon it, pressing down the top and forming gas connexion by means of a small pilot light. The capacity of the fire space in these grates is very considerably smaller than that of the old grates they replaced, but their warming power is far greater, and that with a materially reduced expenditure of fuel.

During the time the hospital has been closed the whole of the interior has been painted and redecorated. The drainage has been thoroughly overhauled, and as far as it has been possible to do so all drains under the hospital have been removed. Where a drain has of necessity to pass under any part of the building it has been relaid with iron pipes and covered with concrete. In the autumn of last year the laundry drains were entirely relaid with open channels. Plans have been prepared for a new operation theatre with anæsthetist's room, surgeons' room and recovery room adjoining, and for a small operation room. This work will be undertaken early next year.

ALIEN IMMIGRATION.

II.

THE three grounds upon which objection to immigrants may be taken—moral, sanitary, and economic—require, as we pointed out in our issue of Sept. 30th, a very comprehensive examination of the newcomer from various points of view. But whilst the sanitary inspection is quite a matter by itself, that which is suggested by moral considerations tends very much to blend with those which economy would dictate. In other words, moral and economic grounds have very much in common. Beginning with the class of moral delinquents, the class most manifestly objectionable upon moral grounds, we seem to be far away from any question of economics; but these persons are comparatively few and very hard to catch. Mr. Schloss observes with much force: "How can it be possible to detect by mere inspection, as a man walks past the doctors and the registry clerks, the fact that he was some time ago sentenced as guilty of an offence against the criminal law? The same remark applies also in the case of polygamists." But of much greater practical importance for present purposes are moral qualities involving no reproach of delinquency which nevertheless place the immigrant in a position of isolation and therefore of serious disadvantage both to himself and to the community. This is well illustrated by the case of the Russian Jew, as depicted by Mr. Burnet in the following passage: "The tendency to settle down in the great centres and to take so entire possession of certain localities as gradually to force out the population of other nationalities and establish a state of isolation from the remainder of the community has been fostered in other ways, especially by the practices required by their religion. If men require to have their meat slaughtered in a special way and their food generally prepared in modes which are not those of the population generally, they will naturally seek to live under conditions which make special arrangements in these matters possible. Another contributory cause towards these tendencies to exclusion from intercourse with their neighbours of other nationalities has been that of language, together with a disposition so suspicious and distrustful as to incline them always to keep by themselves." To identify such people is, of course, a matter of no difficulty. The question may be considered to be one of race simply about which there can, save in exceptional instances, be no manner of doubt. This case, therefore, is very different in this particular from that of criminals who, being of any and every nationality, bear no distinctive mark. The real difficulty here is to determine what to do with them when found. The case of the Jew presents a special difficulty in the fact that even when he falls into destitution he seldom becomes a charge upon the public purse, for in the United States, as in our own country, the Jewish community is very highly organised for the purpose of providing for the needs of its poorer members, and so it happens that so far as statistical pauperism is concerned the Jews are able to point to a better record than that of any other race which has contributed largely to the population of the New World. But they are nevertheless objected to as a demoralising agency in the districts in which they settle. It is said that they are physically weak and unfit for employments requiring great muscular exertion; that their knowledge of the skilled trades is limited to a very small range; that, coming in disproportionately large numbers into industries already fully stocked with native labour, they lower wages, set up a reduced standard of living and social comfort and thus injure the people amongst whom they intrude. This is a very formidable indictment, and what is particularly noteworthy is that the moral and economic disqualifications are inextricably connected together as cause and consequence. The isolation of the Jew and his want of versatility, which are the defects that make him a source of economic trouble, result directly from his language, his religion, his unhappy antecedents, and his defective education. Such an aggregate of unfavourable conditions is formidable enough to explain any possible degree of unpopularity in the immigrants, but in point of fact the Russian Jew is not the most unpopular of new comers in America. The Italian immigrants, whose misery seems to be in large measure due to their being the victims of a bad emigration system, are looked upon with quite as much disfavour and for much the same reasons. Brought in large numbers by emigration agencies and cast adrift upon the streets of New York, they form a foreign colony, and subsist upon starvation wages in a condition of frightful poverty. Of them Mr. Burnet says that "the lowest labour in the States is now mostly done by Italians. They do the unskilled labour of the railroads, the stripping or surface labour of the mines, and the repairing and sweeping of the public streets. From those walks of labour they have completely forced out the Irish labourers who used to do such work, and it is felt that they have reduced the rate of wages paid in such occupations. There are none in the United States who work so hard or so long as the Italians or for so little wages and on so small an amount of food. Their effect upon American wages and standards of comfort is, therefore, felt wherever they compete with other labour."

In all such cases as these the question on what principle immigration is to be regulated becomes one of extreme difficulty. Nor does it seem from the present report that the Americans have yet succeeded in discovering the true principle or in devising an effective machinery for carrying any principle, sound or unsound, into practical effect. The most systematic and serious effort has been directed to repress Chinese immigration. There the legislature has run to the extreme course, a weakness which is the besetting sin of American legislation. Not

only has the immigration of Chinese been forbidden, but a law has been passed requiring all Chinamen resident in the United States to register themselves within a limited time on pain of deportation. The Chinese have abstained in such vast multitudes from compliance with the law that the enforcement of the cruel and immoral penalty has been found impracticable, and the law remains a dead letter. Such random experiments in legislation afford no help, and the whole effect of the report is to show that there has as yet been no formation of a wise and well-considered public opinion in the United States upon these operations. The problem lies open here in all its multifariousness, but the solution must be sought elsewhere.

In one respect it would seem that the Government has grappled successfully with a very small part of the whole problem. To the working men of America great offence has been from time to time given by the importation of foreign labourers to supply the places of labourers on strike. To remedy this grievance, and also, perhaps, with a view of giving an even more extended "protection" to the American working man, a scheme of legislation has been adopted known as the contract labour laws, of which the general effect is to shut out any person who proposes to enter the United States under a contract of service. The casual seeker after work may be admitted; the man who knows where there is room for his labour and has secured a promise of employment before setting out must be refused admission. It is said that these provisions have materially contributed to the success of certain strikes, and this in the eyes of those who rule is their sufficient justification. It seems, however, to be admitted, even by the officials charged with the administration of the law, that it is systematically evaded in ordinary times; and indeed, apart from the question of strikes, it clearly involves an absolutely ridiculous sacrifice of the substance to the shadow. Even at this one point, where a certain measure of success has been secured, the success is, so far as we ourselves are concerned, barren of result, for no proposal quite so whimsical as the American contract labour laws would have any chance of receiving legislative sanction amongst ourselves.

In turning from this branch of the subject dealt with in the report now under discussion, we may sum up by saying that the problem of regulating immigration with regard to the moral and economic considerations which it brings into prominence has plainly attained to a degree of practical importance in the United States far greater than that which it has attained amongst ourselves, but that there seems to be at present no enlightened public opinion and no successful legislation on the subject from which we can borrow either guidance or help.

STATISTICAL RETURNS OF THE ST. LAZARE LEPER ASYLUM, 1869-1892.

THESE returns are made by Dr. Poupinel de Valencé, who is in medical charge of the asylum which shelters the lepers of Mauritius. In the course of a few introductory remarks he states that he has been officially connected with the St. Lazare Asylum since 1865. He writes in an admirable spirit of his high view of the duties which his work amongst the lepers requires of him, and he says in this connexion: "I at once understood that the task I had to perform was an important one, and could only be a complete one were I able to leave after me some good and useful results. I foresaw from the very first the services which statistical observations, carefully and regularly noted down, could render to science by means of figures supported by arguments all of which might contribute to throw light upon certain burning questions, such as the heredity and transmission of the disease, which a mistaken philanthropy is endeavouring to present as a matter of secondary importance." Apart from a certain haziness of construction, these words indicate very well the fact that Dr. de Valencé was fully alive to the possibilities of work such as he found ready to his hand in the Leper Asylum at Mauritius. His reference to the "heredity and transmission" of leprosy raises our hopes even in spite of the oddness of the phrase, which is probably meant to have reference to the hereditary transmission and the infectiveness of the disease; when, however, we read the returns themselves we find a statement of the "daily average number of leper patients at the St. Lazare Asylum, Mauritius," of the "annual death-rate on average daily population" of the patients' sex, and of the numbers that died or were discharged from the asylum. And this is all that there is in these returns. It is disappointing; for we had expected to find something more than a mere collection of tables of figures in the work of one who tells us that since 1865 he has been impressed with the importance of the "services which statistical observations, carefully and regularly noted down, could render to science by means of figures supported by arguments," and so on. We can but hope that Dr. de Valencé, having given us the figures, will very soon let us have the arguments of which he writes so well in the passage we have quoted above.

It would be of real interest to find in these returns all the facts relating to the steady and rapid rise there recorded in the daily averages of the number of lepers in the asylum between the years 1869 and 1880 (both inclusive). At the former date the year's average of these daily averages was 101; in 1880 it was 274. To our surprise Dr. de Valencé makes no comment on the facts brought out by this statistical record, and so loses the opportunity which these figures give him of acting up to his own admirable and most excellent view of his duties as medical officer of the Mauritius Leper Asylum. This curious failure to make even an attempt to reach his own high standard of duty is noteworthy in a man who professes so much. Another interesting fact brought out by these returns is that from the year 1881 till 1892 (both inclusive) there was a steady diminution in the yearly averages of the daily average number of lepers in the asylum, which, though not a steady fall, there being an increase in the averages during 1885-86-87-88, was nevertheless a very noticeable one. Here, again, Dr. de Valencé neglects an opportunity of putting into practice those admirable principles which he tells us he laid down for his own guidance in his work. Not a word does he say in explanation of why there were fewer lepers in the asylum in these years than in those which preceded them.

Dr. de Valencé tells us that Indians who have been "introduced" into Mauritius to work there as agricultural labourers "are entitled to a free return passage" to India "at the end of their engagement." Those of the Indians, he says, who claim a free passage, "and especially if they are lepers, are, with praiseworthy discernment on the part of the Honourable the Protector of Immigrants, sent back to their country. Those lepers, if kept in this colony, would become useless and burdensome." We cannot call to mind having previously noticed such a vein of humour in an official report as that which runs through the quotation we have just made from the introduction to these returns. Whether or not Dr. de Valencé saw the fun of it when he wrote it we do not venture to say; it would, however, be interesting to know the view that the authorities and people of India take of a system by which natives of that country are sent back to their homes from Mauritius, where they have contracted an incurable and horrible disease which spreads from the leper to the healthy man by virtue of its infectiveness. It is possible that the view taken of the "praiseworthy discernment" of the "Honourable the Protector of Immigrants" in this matter of the lepers by the people of India might materially differ from that taken of the subject by the Mauritians. We, however, quite agree with Dr. de Valencé when he says: "These lepers, if kept in this colony, would become useless and burdensome." Perhaps when he writes the arguments which he says are needed to support his statistics he will tell his readers of what use these men who have become lepers in Mauritius are in India.

We wonder how we in England should deal with a people under our own rule who took healthy labourers from amongst our rural population, conveyed them over sea to work as farm labourers, and returned no inconsiderable number of them to their English homes infected with leprosy—one of the most horrible, if, indeed, it is not the most horrible, of incurable diseases. His Royal Highness the Prince of Wales not long ago set a good example to men of influence in all classes of society when he brought to light the facts, now well known, concerning the Smithfield leper. Will no one of our influential public men follow his example, and point out in plain language the facts about the Mauritius lepers, who are sent back to India after having been infected with leprosy whilst working in that colony? India is ours, Mauritius is ours; and on whom, if not on the English people, rests the responsibility for the state of things narrated by Dr. de Valencé with such charming artlessness?

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

IN thirty-three of the largest English towns 6258 births and 3656 deaths were registered during the week ending Oct. 7th. The annual rate of mortality in these towns, which had been 19·7 and 20·2 per 1000 in the preceding two weeks, declined again last week to 18·5. In London the rate was 17·9 per 1000, whilst it averaged 18·8 in the thirty-two provincial towns. The lowest rates in these towns were 8·1 in Croydon, 11·3 in Halifax, 12·8 in Portsmouth, 13·4 in Bristol, and 13·5 in Norwich; the highest rates were 21·5 in Salford, 22·2 in Hull, 23·2 in Liverpool, 23·6 in Sunderland, and 32·2 in Wolverhampton. The 3656 deaths included 543 which were referred to the principal zymotic diseases, against 774 and 760 in the preceding two weeks; of these, 193 resulted from diarrhœa, 88 from diphtheria, 81 from "fever" (principally enteric), 68 from whooping-cough, 68 from scarlet fever, 30 from measles, and 15 from small-pox. No death from any of these diseases was recorded in Plymouth; in the other towns they caused the lowest death-rates in Bristol, Croydon, Preston, and Halifax; and the highest rates in Bradford, Gateshead, Bolton, Norwich, and Sunderland. The greatest mortality from measles occurred in Norwich; from scarlet fever in Leicester; from whooping-cough in Bolton; from "fever" in Liverpool, Birkenhead, Swansea, Nottingham, Norwich, Hull, and Sunderland; and from diarrhœa in Swansea, Salford, Sunderland, and Gateshead. The 88 deaths from diphtheria included 74 in London and 2 in Hull. Ten fatal cases of small-pox were registered in Bradford, 2 in West Ham, and 1 each in London, Wolverhampton, and Birmingham, but not one in any other of the thirty-three large towns. The Metropolitan Asylum Hospitals and the London Fever Hospital contained 79 small-pox patients on Saturday last, the 7th inst., against 112, 91, and 77 at the end of the preceding three weeks; 15 new cases were admitted during the week, against 14 and 15 in the preceding two weeks. The number of scarlet fever patients in the Metropolitan Asylum Hospitals and in the London Fever Hospital at the end of the week was 2801, against 2889, 2849, and 2815 on the preceding three Saturdays; 305 new cases were admitted during the week, against 318 and 311 in the preceding two weeks. The deaths referred to diseases of the respiratory organs in London, which had increased from 150 to 231 in the preceding three weeks, were 230 last week, and corresponded with the corrected average. The causes of 62, or 1·7 per cent., of the deaths in the thirty-three towns were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Portsmouth, Bristol, Bradford, Newcastle-on-Tyne, and in ten other smaller towns; the largest proportions of uncertified deaths were registered in West Ham, Birmingham, Leicester, and Sheffield.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had been 17·3 and 19·6 per 1000 in the preceding two weeks, declined again to 19·5 during the week under notice, but was 1·0 per 1000 above the mean rate during the same period in the thirty-three large English towns. The rates in the eight Scotch towns ranged from 14·7 in Leith and 15·4 in Perth, to 22·5 in Dundee and 22·6 in Paisley. The 549 deaths in these towns included 27 which resulted from whooping-cough, 26 from diarrhœa, 17 from "fever," 7 from diphtheria, 5 from scarlet fever, and not one either from small-pox or measles. In all, 82 deaths were referred to these principal zymotic diseases, against 103 and 107 in the preceding two weeks. These 82 deaths were equal to an annual rate of 2·9 per 1000, which was slightly above the mean rate last week from the same diseases in the thirty-three large English towns. The fatal cases of whooping-cough, which had increased from 19 to 29 in the preceding three weeks, were 27 last week, of which 11 occurred in Glasgow, 8 in Edinburgh, and 6 in Dundee. The 26 deaths from diarrhœa showed a further decline from those recorded in recent weeks, and included 11 in Glasgow and 5 in Dundee. The deaths referred to different forms of "fever," which had been 6 and 13 in the preceding two weeks, further rose to 17 last week, of which 7 occurred in Glasgow and 4 in Paisley. The fatal cases of diphtheria, which had increased from 9 to 19 in the preceding four weeks, declined to 7 last week, and included 4 in Glasgow and 2 in Edinburgh. The 5 deaths from scarlet fever showed a decline of 3 from the number in the preceding week, and included 2 in Leith. The deaths referred to diseases of the respiratory organs in these towns, which had been 74 and 88 in the preceding two weeks, further rose to 105 last week and exceeded by 21 the number in the corresponding week of last year. The causes of 30, or more than 5 per cent., of the deaths in these eight towns last week were not certified.

HEALTH OF DUBLIN.

The death-rate in Dublin, which had declined from 28·3 to 23·3 per 1000 in the preceding three weeks, was again 23·3 during the week ending Oct. 7th. During the thirteen weeks of the quarter ending on the 30th ult. the death-rate in the city averaged 26·3 per 1000, against 20·5 in London and 16·1 in Edinburgh. The 156 deaths registered in Dublin during the week under notice corresponded with the number in the preceding week, and included 28 which were referred to the principal zymotic diseases, against numbers declining from 43 to 24 in the preceding three weeks; of these, 14 resulted from diarrhœa, 7 from "fever," 6 from whooping-cough, 1 from measles, and not one either from small-pox, scarlet fever, or diphtheria. These 28 deaths were equal to an annual rate of 4·2 per 1000, the zymotic death-rate during the same period being 2·7 in London and 3·1 in Edinburgh. The fatal cases of diarrhœa, which had declined from 26 to 16 in the preceding three weeks, further fell to 14 last week. The deaths referred to different forms of "fever," which had been 14, 8, and 6 in the preceding three weeks, were 7 last week. The 6 fatal cases of whooping-cough considerably exceeded the number recorded in any recent week. The 156 deaths registered in Dublin last week included 32 of infants under one year of age and 30 of persons aged upwards of sixty years; the deaths of infants showed a decline from the numbers in recent weeks, while those of elderly persons showed a slight increase. Seven inquest cases and 3 deaths from violence were registered; and 42, or more than a fourth, of the deaths occurred in public institutions. The causes of 10, or more than 6 per cent., of the deaths in the city last week were not certified.

VITAL STATISTICS OF LONDON DURING SEPTEMBER, 1893.

IN the accompanying table will be found summarised complete statistics relating to sickness and mortality during September in each of the forty-one sanitary districts of London. With regard to the notified cases of infectious disease in the metropolis during last month, it appears that the number of persons reported to be suffering from one or other of the nine diseases in the accompanying table was equal to 23·6 per 1000 of the population, estimated at 4,305,551 persons in the middle of this year. In the preceding two months the rates had been 19·3 and 17·2 per 1000. Amongst the various sanitary districts the rates last month were considerably below the average in Kensington, Hammersmith, Hampstead, St. Martin-in-the-Fields, Strand, St. Olave Southwark, and Woolwich; whilst they showed the largest excess in St. Pancras, Hackney, Holborn, Shoreditch, Bethnal Green, St. George-in-the-East, Limehouse, and Poplar. The prevalence of small-pox in London showed a further decline during September, an average of 22 cases weekly being notified, against 134, 89, 61, and 26 in the preceding four months; of the 88 cases notified during last month, 15 belonged to Bethnal Green, 13 to Poplar, 8 to St. George Southwark, 7 to Hackney, and 7 to Camberwell sanitary districts. The Metropolitan Asylum Hospitals contained 71 small-pox patients at the end of September, against numbers declining from 516 to 129 at the end of the preceding four months; the weekly admissions averaged 18, against 75, 50, and 22 in the preceding three months. The prevalence of scarlet fever in London showed a very marked increase upon that recorded in recent months; this disease was proportionally most prevalent in St. Pancras, Islington, Hackney, Holborn, Clerkenwell, Bethnal Green, Whitechapel, St. George-in-the-East, Limehouse, and Poplar sanitary districts. The Metropolitan Asylum Hospitals contained 2659 scarlet fever patients at the end of September, against 2653, 2800, and 2755 at the end of the preceding three months; the weekly admissions averaged 293, against 321 in each of the preceding two months. Diphtheria showed considerably increased prevalence during the month

MONTHLY ANALYSIS OF SICKNESS AND MORTALITY STATISTICS IN LONDON.—SEPTEMBER, 1893.

(Specially compiled for THE LANCET.)

Sanitary areas.	Estimated population in the middle of 1893.	Notified Cases of Infectious Disease.										Deaths from Principal Infectious Diseases.										Deaths from all causes.	Death-rate per 1000 living.	Deaths of Infants under one year to 1000 births.
		Small-pox.	Scarlet fever.	Diphtheria.*	Typhus fever.	Enteric fever.	Other continued fevers.	Puerperal fever.	Erysipelas.	Cholera.	Total.	Annual rate per 1000 persons living.	Small-pox.	Measles.	Scarlet fever.	Diphtheria.†	Whooping-cough.	Typhus fever.	Enteric fever.	Other continued fevers.	Diarrhœa.	Total.	Annual rate per 1000 persons living.			
LONDON	4,305,551	88	4684	1528	3	373	14	26	1044	34	7796	23·6	5	61	135	308	187	—	60	1	428	1185	3·6	6115	18·5	163
West Districts.																										
Paddington	120,277	1	74	22	—	8	—	2	25	—	132	14·3	—	3	1	8	4	—	3	—	7	26	2·8	128	15·0	170
Kensington	167,038	1	90	29	—	4	—	1	16	1	142	11·1	—	—	7	7	9	—	—	—	13	36	2·8	210	16·5	176
Hammersmith	103,674	—	56	22	—	5	—	1	25	—	109	13·7	—	—	3	7	3	—	2	—	5	20	2·5	131	16·4	170
Fulham	103,075	1	67	36	—	7	1	—	12	2	126	15·9	—	—	2	3	5	—	2	—	14	26	3·3	140	17·7	173
Chelsea	98,114	1	78	12	—	9	—	1	19	1	121	16·1	—	1	1	3	4	—	3	—	8	20	2·7	139	18·5	152
St. George Hanover-square	75,825	—	68	11	—	7	—	—	6	2	94	16·2	—	—	2	1	1	—	1	—	2	7	1·2	67	11·5	99
Westminster	54,761	3	61	5	—	2	—	—	12	2	85	20·2	—	—	3	—	1	—	—	—	2	6	1·4	73	17·1	112
St. James Westminster	23,873	—	20	2	—	3	1	—	5	—	31	16·9	—	—	—	—	1	—	—	—	1	2	1·1	30	16·4	200
North Districts.																										
Marylebone	139,546	—	125	47	—	7	—	—	36	2	217	20·3	—	3	7	10	6	—	—	—	10	36	2·4	215	20·1	135
Hampstead	73,949	—	51	10	—	1	—	—	7	—	69	12·2	—	—	1	—	—	—	—	—	2	3	0·5	49	8·6	63
St. Pancras	234,025	—	403	81	—	16	1	1	74	3	579	32·3	—	4	12	14	6	—	2	—	18	56	3·1	340	18·9	160
Islington	328,608	—	422	97	—	28	1	1	72	—	621	24·6	—	1	10	21	21	—	6	—	29	88	3·5	451	17·9	191
Hackney	240,177	7	363	121	—	57	1	2	62	3	616	33·4	1	2	12	20	19	—	4	—	17	75	4·1	322	17·5	150
Central Districts.																										
St. Giles	38,511	1	37	3	—	3	—	—	9	—	53	17·9	—	—	1	1	3	—	1	—	4	10	3·4	75	25·4	343
St. Martin-in-the-Fields	13,911	1	11	2	—	—	—	—	1	—	15	14·1	—	—	—	1	—	—	—	—	—	1	0·9	13	12·2	56
Strand	23,508	—	20	4	—	1	—	—	1	—	26	14·4	—	—	2	—	1	—	—	—	1	3	1·7	40	22·2	205
Holborn	32,646	—	45	16	1	1	—	—	15	—	80	31·9	—	—	—	1	1	—	2	—	6	13	5·2	69	27·5	293
Clerkenwell	65,163	1	82	29	—	3	—	—	25	2	142	28·2	—	1	—	10	3	—	2	—	9	25	5·0	117	23·4	219
St. Luke	41,406	—	38	27	—	4	—	1	13	—	83	26·1	—	1	1	6	2	—	2	—	8	20	6·3	89	28·0	152
City of London	35,383	—	37	2	—	2	—	—	8	2	51	18·8	—	3	1	1	—	—	—	—	1	6	2·2	56	10·6	151
East Districts.																										
Shoreditch	123,425	4	146	73	—	18	—	—	42	1	284	30·0	1	10	3	10	6	—	2	—	24	56	5·9	243	25·3	188
Bethnal Green	129,625	15	194	60	—	12	—	1	54	2	368	37·0	2	1	8	16	7	—	1	—	33	68	6·8	247	25·8	191
Whitechapel	75,163	—	99	25	—	11	—	—	20	—	165	26·9	—	1	5	11	2	—	—	—	8	27	4·7	148	25·7	223
St. George-in-the-East	45,182	3	75	31	—	3	—	1	12	—	125	36·1	—	—	1	—	6	—	1	—	9	17	4·9	105	30·3	215
Limehouse	57,386	—	80	29	2	11	—	—	30	—	152	34·5	—	3	2	3	3	—	3	—	5	19	4·3	114	25·9	195
Mile End Old Town	108,006	4	130	35	—	10	—	—	35	—	214	25·8	1	—	2	4	5	—	3	—	14	29	3·5	168	20·3	175
Poplar	168,876	13	327	179	—	51	2	1	66	—	638	49·2	—	4	12	23	4	—	4	—	25	72	5·6	288	24·2	159
South Districts.																										
St. Saviour Southwark	26,823	6	20	7	—	1	—	—	7	—	41	10·9	—	—	3	4	2	—	—	—	3	12	5·8	48	23·3	148
St. George Southwark	59,952	8	58	16	—	4	—	—	25	1	122	16·5	—	3	5	9	4	—	3	—	9	33	7·2	120	26·1	186
Newington	117,430	1	129	61	—	9	—	—	18	1	219	24·3	—	4	6	9	6	—	—	—	17	41	4·6	195	21·6	176
St. Olave Southwark	12,861	—	7	2	—	1	—	—	3	—	13	15·2	—	—	—	—	1	—	—	—	1	2	2·0	19	19·3	250
Bermondsey	84,244	—	64	17	—	6	—	—	18	—	105	16·2	—	5	1	5	3	—	2	—	9	25	3·9	113	17·5	156
Rotherhithe	39,764	—	33	6	—	2	—	2	11	—	54	17·7	—	1	3	2	2	—	1	—	4	13	4·3	55	18·0	116
Lambeth	280,567	—	294	94	—	14	7	1	52	3	465	21·6	—	3	3	20	20	—	3	1	50	70	3·3	358	16·6	140
Battersea	160,623	4	158	77	—	6	—	1	42	—	288	23·4	—	3	3	26	6	—	1	—	16	55	4·5	202	16·4	143
Wandsworth	169,379	1	125	60	—	6	—	2	31	1	226	17·4	—	—	1	13	6	—	1	—	14	35	2·7	175	13·6	119
Camberwell	246,837	7	230	89	—	10	—	3	51	4	344	18·2	—	2	2	7	5	—	1	—	25	42	2·2	279	14·7	128
Greenwich	173,349	—	171	65	—	21	—	3	43	—	303	22·8	—	2	3	24	8	—	3	—	23	63	4·7	238	17·9	149
Lewisham (excluding Penge)	76,593	1	75	12	—	1	—	1	22	—	112	19·1	—	—	1	3	—	—	1	—	3	8	1·4	85	14·5	136
Woolwich	41,794	—	25	3	—	1	—	—	7	1	37	11·5	—	—	—	—	—	—	—	—	2	2	0·6	43	13·4	200
Plumstead	94,192	4	96	19	—	5	—	—	13	—	137	19·0	—	—	5	3	2	—	—	—	7	17	2·4	98	13·6	161
Port of London	—	—	—	—	—	2	—	—	—	—	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

* Including 45 cases of membranous croup.

† Including deaths from membranous croup.

under notice; amongst the various sanitary districts this disease showed the highest proportional prevalence in Hackney, St. Luke, Shoreditch, Bethnal Green, St. George-in-the-East, Poplar, Newington, and Battersea. There were 296 cases of diphtheria under treatment in the Metropolitan Asylum Hospitals at the end of September, against 295, 293, and 291 at the end of the preceding three months; the weekly admissions averaged 65, against 70, 60, and 68 in the preceding three months. Enteric fever was proportionally most prevalent during September in Hackney, Whitechapel, Limehouse, and Poplar sanitary districts. The Metropolitan Asylum Hospitals contained 104 enteric fever patients at the end of September, against 86, 104, and 95 at the end of the preceding three months; the weekly admissions averaged 20, against 16 and 17 in the preceding two months. Erysipelas showed the highest proportional prevalence in St. Pancras, Holborn, Clerkenwell, Bethnal Green, Limehouse, Poplar, and St. George Southwark sanitary districts Three cases of puerperal fever were notified during September in Camberwell and 3 in Greenwich sanitary districts.

The mortality statistics in the accompanying table relate to the deaths of persons actually belonging to the various metropolitan sanitary districts, the deaths occurring in the institutions of London having been distributed amongst the various sanitary districts in which the patients had previously resided. The distribution of these deaths, and especially of those resulting from zymotic diseases, affords the most trustworthy data that can be secured upon which to calculate reliable rates of mortality. During the four weeks ending Saturday, Sept. 30th, the deaths of 6115 persons belonging to London were registered, equal to an annual rate of 18·5 per 1000, against 20·1, 21·8, and 20·2 in the preceding three months. The lowest death-rates during September in the various sanitary districts were 8·6 in Hampstead, 11·5 in St. George Hanover-square, 12·2 in St. Martin-in-the-Fields, 13·4 in Woolwich, 13·5 in Wandsworth, 13·6 in Plumstead, 14·5 in Lewisham (excluding Penge), and 14·7 in Camberwell; the highest rates were 25·7 in Whitechapel, 25·8 in Bethnal Green, 25·9 in Limehouse, 26·1 in St. George Southwark, 27·5 in Holborn, 28·0 in St. Luke, and 30·3 in St. George-in-the-East. During the four weeks of September 1185 deaths were referred to the principal zymotic diseases in London; of these, 428 resulted from diarrhœa, 308 from diphtheria, 187 from whooping-cough, 135 from scarlet fever, 61 from measles, 61 from different forms of "fever" (including 60 from enteric fever and 1 from an ill-defined form of fever), and 5 from small-pox. These 1185 deaths were equal to an annual rate of 3·6 per 1000, against 4·1, 5·5, and 4·4 in the preceding three months. Amongst the various sanitary districts the lowest zymotic death-rates were recorded in St. George Hanover-square, Westminster, St. James Westminster, Hampstead, St. Martin-in-the-Fields, Strand, Lewisham, and Woolwich; and the highest rates in Clerkenwell, St. Luke, Shoreditch, Bethnal Green, Poplar, St. Saviour Southwark, and St. George Southwark. Five fatal cases of small-pox were registered in London during the month under notice, being slightly below the corrected average number in the corresponding periods of the preceding ten years; of these 5 deaths, 2 belonged to Bethnal Green and 1 each to Hackney, Shoreditch, and Mile End Old Town sanitary districts. The 61 deaths referred to measles were 15 below the average number; amongst the various sanitary districts this disease showed the highest proportional fatality in City of London and Shoreditch. The 135 fatal cases of scarlet fever exceeded by 29 the corrected average number; this disease was proportionally most fatal in Strand, Bethnal Green, Whitechapel, Poplar, St. Saviour Southwark, and St. George Southwark sanitary districts. The 308 deaths referred to diphtheria were nearly three times the corrected average, and exceeded the number in any month on record; amongst the various sanitary districts this disease showed the highest proportional fatality in Hackney, Clerkenwell, St. Luke, Bethnal Green, Whitechapel, Poplar, St. George Southwark, Battersea, and Greenwich. The 187 fatal cases of whooping-cough exceeded by 69 the corrected average; this disease was proportionally most fatal in Hackney, St. George-in-the-East, and Lambeth sanitary districts. The 61 deaths referred to different forms of "fever" were 13 below the corrected average; amongst the various sanitary districts the highest "fever" death-rates were recorded in Limehouse and St. George Southwark. The 428 fatal cases of diarrhœa were 45 above the average; this disease showed the highest proportional fatality in St. Luke, Shoreditch, Bethnal Green, St. George-in-the-East, Poplar, and Newington sanitary districts. In conclusion, it may be stated that the mortality in London during September from these principal zymotic diseases exceeded the average by 37 per cent.

Infant mortality in London during the month under notice, measured by the proportion of deaths under one year of age to births registered, was equal to 163 per 1000, and slightly exceeded the average; the lowest rates of infant mortality were recorded in St. George Hanover-square, Westminster, Hampstead, St. Martin-in-the-Fields, Rotherhithe, and Wandsworth; the highest rates in St. Giles, Strand, Holborn, Clerkenwell, Whitechapel, St. George-in-the-East, and St. Olave Southwark sanitary districts.

THE SERVICES.

MOVEMENTS IN THE MEDICAL STAFF.

SURGEON-MAJOR-GENERAL F. W. WADE will act as Principal Medical Officer to his Royal Highness the Duke of Connaught at Aldershot. Surgeon-Captain Kearney has been posted to Hounslow; Surgeon-Captain Braddell to Newcastle; Surgeon-Captain Reckitt to the Station Hospital at the Western Heights, Dover, and Surgeon-Lieutenant O'Reiley to Cork. Surgeon-Major Jennings has returned to India from leave of absence in England. Surgeon-Captain Brown has been transferred from Edinburgh to Berwick-on-Tweed. The following officers have rejoined their several stations after leave of absence: Surgeon-Major Jackson, Stirling; Brigade-Surgeon-Lieutenant-Colonel Major and Surgeon-Lieutenants Pilcher and Kelly, Aldershot; Surgeon-Colonel Churchill and Surgeon-Major Woodhouse, Woolwich; Surgeon-Major McGann and Surgeon-Captain Hickson, Dublin; Surgeon-Major Ford and Surgeon-Captain Elderton, Southern District. The retired pay appointment at Clonmel has been conferred upon Surgeon-Lieutenant-Colonel Guinness, R. P.

ARMY MEDICAL STAFF.

The following officers, who were promoted to their present rank for distinguished service, are eligible for advancement: Surgeon-Majors T. J. Gallwey, M.D., W. S. Pratt, M.B., W. H. Briggs, M.B. Lond., and W. B. Allin, M.B. Glasg.

INDIA AND THE INDIAN MEDICAL SERVICES.

The following appointments are announced:—2nd Infantry: Surgeon-Lieutenant G. Bidie, I.M.S., Madras Establishment, officiating medical officer, 4th Infantry, to be officiating medical officer during the absence of Surgeon-Major C. L. Swaine, M.D., who has been appointed to officiate as Sanitary Commissioner, Hyderabad Assigned Districts. 4th Infantry: Surgeon-Captain C. H. L. Palk, I.M.S., Madras Establishment, officiating medical officer, 2nd Infantry, to be Medical Officer, vice Surgeon-Major E. M. Damla, who has been appointed to the Medical Charge of the Madras Infantry Depôt, Pallaveram. Surgeon-Colonel J. G. Pilcher, to officiate as Inspector-General of Civil Hospitals, North-West Provinces and Oudh, during the absence of Surgeon-Colonel J. Richardson. The services of Surgeon-Major G. S. A. Ranking, M.D., I.M.S. (Bengal), are replaced at the disposal of the Military Department. The services of Surgeon-Captain Buchanan have been replaced at the disposal of the Military Department, when he makes over charge as Officiating Civil Surgeon, Midnapore. Surgeon-Colonel Harvey succeeds to the Inspector-Generalship of Civil Hospitals in Bengal. Surgeon-Colonel Spencer, Principal Medical Officer, Presidency District, will succeed Surgeon-Colonel Harvey in charge of the Punjab Frontier Force. Brigade-Surgeon-Lieutenant-Colonel Birch, Principal, Medical College, Calcutta, is likely to take Surgeon-Colonel Spencer's place. Surgeon-Major Robertson, Officiating British Agent at Gilgit, has arrived at Simla, as he is about to proceed on leave to England.

NAVAL MEDICAL SERVICE.

The following appointments are announced:—Staff-Surgeons: William G. Jack to the *Magdala* and John Ottley to the *Hyacinth* (dated Oct. 10th, 1893); and C. W. Sharples to the *Brisk* (dated Oct. 11th, 1893). Surgeons: John P. J. Coolican to the *Penelope* and Edward T. Meagher to the *Impregnable* (dated Oct. 2nd, 1893); Percy E. Maitland to the *Philomel*, J. L. Bagnall-Oakeley to Keyham Yard, and Edgar R. Dimsey to the *Bellona* (all dated Oct. 10th, 1893).

VOLUNTEER CORPS.

Rifle: 1st Volunteer Battalion, the King's (Liverpool

Regiment): Surgeon-Lieutenant W. E. Crozier to be Surgeon-Captain (dated Oct. 7th, 1893).

SUPPLY OF MEDICINES AND MEDICAL COMFORTS TO NATIVE HOSPITALS.

The *Times of India* is quite right in calling attention to the subject of the supply of medicines and medical comforts and the equipment of the regimental hospitals of native corps in India. It is, of course, neither desirable nor necessary to have the hospitals for native troops supplied and equipped like those of the station hospitals for British troops, for their requirements are very different; but there is, nevertheless, much room for improvement in these institutions for the comfort and well-being of the sick native soldier in India.

THE HEMP DRUGS COMMISSION.

According to the latest accounts this Commission was holding its sittings and receiving evidence at the Council Hall in Poona, and was about to start on the 18th ult. for Bangalore and Madras, returning to Poona about Dec. 15th for the examination of any witnesses who may desire to offer themselves.

FEVER IN THE NORTH-WEST PROVINCES AND OUDH.

The death-rate from fever in the North-west Provinces and Oudh, according to the sanitary report for the past year, is stated to have reached a total of 1,600,000. Under the head of fever no doubt a large number of diseases attributable to other causes are included, but the mortality is very large in any case and far exceeds that of cholera. The cholera epidemic of last year caused nearly 200,000 deaths. The pilgrims from the fair held at Hurdwar in April are alleged to have spread the disease in their track.

THE PUNJAB AND CHOLERA.

We are glad to learn from the Indian papers that no death from cholera had been reported in the Punjab during the first week of August last, usually the most fatal month for cholera. It is during July, August, and September that the death-rate from this cause is usually largest in the province. The disease last year attained great dimensions in the Punjab and caused a total death-rate of nearly 76,000, as against a little over 10,000 during the previous year. The fever death-rate of last year was, however, even far in excess of the mortality from cholera. The year was an exceptional one; the subsoil was water-logged from heavy rains and provisions were unusually dear.

A MANUAL OF THE DRESS AND EQUIPMENT OF THE MEDICAL SERVICES.

We have received a copy of a Manual of the Dress and Equipment of the Medical Services of the Army, Militia, and Volunteers, compiled by Surgeon-Captains Perry Marsh and S. O. Stuart of the Army Medical Staff. It is printed by F. G. Britten, West Surrey Printing Works, Ashvale, Surrey, from whom, or from Staff-Sergeant Hall, at the Depôt, M.S.C., Aldershot, copies may be procured. No separate reference guide of the kind exists for the Medical Services, and the matter which it embraces is difficult to find from being mixed up in the General Dress Regulations of the Army and in numerous disconnected Army Orders. This little book was therefore much wanted and will prove a reliable and very handy volume for reference.

THE MATABELE WAR.

Intelligence from Cape Town informs us of the British advance in view of making an attack upon Lobengula's Kraal. The present aspect of affairs in Mashonaland has given rise to a good deal of activity of late in the Colonial Office of this country. At the Cape it is of course the subject of serious attention amongst the military and civil authorities, and it has been decided to move at least one regiment up country from Cape Colony. This will necessitate the despatch of a relieving regiment from England. The rainy season will be commencing in two months' time, and it is therefore very important that the Matabele forces should be speedily subdued if we are to avoid an irregular and protracted guerilla warfare. The difficulties of the country are considerable, and it is to be hoped that not only will the British force be sufficient for the purpose but that due preparation will be made for provisioning it and for supplying the expedition with an adequate number of medical officers and sufficient medical stores.

Correspondence.

"Audi alteram partem."

PROFESSOR LIONEL BEALE ON MATERIALISM.

To the Editors of THE LANCET.

SIRS,—In his introductory lecture to the students of King's College Professor Lionel Beale criticised materialism from a biological point of view and strongly emphasised the impossibility of deducing life from non-living matter. The incompetency of materialism to explain the cosmos may be still further seen if regarded from the point of view of the physicist. According to the physicist the various forces of matter are interchangeable. Mechanical energy is capable of conversion into heat, electricity &c.; whilst, on the other hand, heat and electricity are capable of conversion into mechanical energy. Now, if man is flung as a natural object into the mechanism of nature, mental energy must be capable of conversion into the other forms of energy; and consciousness, thought, and sensation must be capable of conversion into heat, electricity &c. Accordingly, on this theory, the exorbitant demand is made that matter which occupies space and possesses inertia should abnegate its special properties and appear in time as consciousness, thought, and sensation, all of which are destitute of space properties and separated from matter by the wide diameter of being. Moreover, if the brain secretes consciousness, sensation, and thought in the same way as the liver secretes bile, then must the brain cells extract consciousness &c. from the materials of the blood much in the same way as the liver cells extract bile. Surely the very statement of this view is sufficient to show its absurd and contradictory nature.

Here, however, the materialist may fall back on the localisation of the functions of the brain as corroborative of the view that the brain secretes consciousness &c. This, however, is no more than a representative hypothesis—one which, like the atomic theory in chemistry, serves the useful purpose of binding together the various facts and rendering them more apprehensible to the imagination. It makes no attempt to explain the nature of the causal relation existing between the mental and material series. In undertaking this problem, science is compelled to pass beyond the limits prescribed by her methods of investigation and research. Depending for her data on the evidence of the senses, it deals only with phenomena as they pass by the observer either in clusters or in file. Beyond phenomena and their relations it is unable to go. Do scientists rest content with this restriction? On the contrary, they postulate as causes of phenomena the various forces which are interchangeable amongst themselves. They do so in consequence of an intellectual necessity by means of which the intellect cannot regard phenomena other than as the expression of power. Moreover, as will is the only power we know, will should be taken as the type of the various forms of energy. Does an opponent object to this limitation of science as too metaphysical or philosophical? If so he must count the cost of his own theory. If consciousness, thought, and volition are products of molecular changes in the brain, then they become effects, and must play their part in the transformation of the various forms of energy in nature. In this case it is idle to speak of man possessing the prerogative of choosing true from false and right from wrong. At one stroke this theory obliterates the distinction between truth and falsehood and between right and wrong. All is but the necessary outcome of the necessary mechanism of nature.

That this is not an exaggerated statement may be seen by reading the following quotation from Professor Huxley[1]: "The nervous system stands between consciousness and the assumed external world as an interpreter who can talk with his fingers stands between a hidden speaker and a man who is stone-deaf; and realism is equivalent to a belief on the part of the deaf man that the speaker must also be talking with his fingers. The shibboleth of materialists that 'thought is a secretion of the brain' is the Fichtean doctrine that the 'phenomenal universe is the creation of the Ego' expressed in other language." Here thought is regarded as a "secretion of the brain." In precisely the same sense dreams and the delusions of the insane must be regarded as "secretions

[1] Science and Culture, p. 209.

of the brain." As Professor Huxley distinctly states that thought and will are products of molecular changes in the brain, and as on this view man's faculty of intelligence is bereft of the prerogative of choice, there remains for Professor Huxley the crucial question, How separate truth from falsehood and right from wrong? Having flung truth and falsehood, right and wrong, sane and insane, into the same category and bound them in the everlasting and adamantine chains of dire necessity, their separation truly seems a hopeless task. "Sic transit gloria mundi."

I am, Sirs, yours truly,

J. M. MACLENNAN, M.A., M.B.

Albert-road, Widnes, Oct. 9th, 1893.

THE TOAD IN THERAPEUTICS.

To the Editors of THE LANCET.

SIRS,—Dr. Lauder Brunton, in his recent address to the Pharmaceutical Society, mentioned that phrynin has an action resembling digitalis, and he also remarked: "It is quite possible that some of these days we may have an enterprising firm advertising essence of toad as being of superlative virtue for the cure of dropsy." During the last century toads were used as local applications for the cure of cancerous breasts. In Martyn's "Natural History," published in 1785, a full account of this mode of treatment is given by Dr. J. H. Pitfield in a letter to the Bishop of Carlisle. The following are extracts from the letter: "Your lordship must have taken notice of a paragraph in the papers with regard to the application of toads to a cancered breast. A patient of mine has sent to the neighbourhood of Hungerford and brought down the very woman on whom the cure was done. I have, with all the attention I am capable of, attended the operation for eighteen to twenty days and am surprised at the phenomena. ..... The animal is put in a linen bag, all but its head, and that is held to the part. It has generally instantly laid hold of the foulest part of the sore and sucked with greediness until it dropped off dead. It has frequently happened that the creature has swollen immensely and from its agonies appeared to be in great pain. ..... They frequently sweat exceedingly and turn quite pale, and sometimes they disgorge, recover, and become lively again. It is only the Rubeta, or land toad, which has the property of sucking. ..... My patient can bear to have but one applied in twenty-four hours. The woman who was cured had them on night and day for five weeks. Their time of hanging at the breast has been from one to six hours. Some die very soon after they have sucked or live about a quarter of an hour, and some much longer. ..... During the time of sucking they were heard to smack their lips like a young child. ..... Other authorities, equally respectable, maintain that there is no visible appearance of the toad's sucking any part of the cancerous poison, though they allow that the animals' swelling and falling off dead is a general consequence of the application." This account is a curious mixture of accurate and inaccurate observation. A toad cannot, of course, suck, and the idea that it did so was doubtless suggested by the smacking of its lips, which is merely an act of gasping. As regards the other phenomena, a toad when injured or alarmed at once blows itself up to about twice its ordinary size. Hence probably the fable of the "Frog and the Ox." Moreover, if held and constrained for any length of time in a hot hand, it sweats profusely and would probably soon die, as it did when applied to the breast in the manner described. In THE LANCET of Aug. 29th, 1891, I mentioned that the effect of the secretion upon the hand is to cause dryness, numbness, and tingling, lasting for a considerable time. Possibly a similar effect might have been produced by the secretion on a painful ulcer, whether cancerous or not, and may thus have afforded a certain amount of relief and a prospect of cure. Phrynin, on evidence derived from various sources, appears to act on the heart, skin, and kidneys. Whether it has any real therapeutic value remains to be seen.

I am, Sirs, yours faithfully,

LEONARD G. GUTHRIE.

Upper George-street, Bryanston-square, W., Oct. 8th, 1893.

"THE SUBCUTANEOUS INJECTION OF PILOCARPINE."

To the Editors of THE LANCET.

SIRS,—In THE LANCET of Oct. 7th I see a letter signed "Hippokratides" asking for information with regard to any bad effects after prolonged injection of pilocarpine. I do not quite gather the full meaning of the term "prolonged." Some two years ago or more I had a case under me that may, perhaps, help "Hippokratides" if mentioned. The patient, a female aged about thirty-five, complained of great deafness, so marked that when lying on a couch in her room she was unable to hear the sound of a kitchen clock ticking on the wall a short distance from her. It was decided after examination to try subcutaneous injections of pilocarpine. I gave her three separate courses, each course consisting of forty consecutive daily injections. In the first I reached a maximum dose of a little over half a grain. After this there was an interval of about six weeks, when a second series was commenced, the maximum dose of which was between two-thirds of a grain and one grain. The third course, which was commenced after another interval of six weeks, reached a maximum dose of one grain and a quarter exactly. No bad symptoms followed; the woman's hearing was decidedly improved, and she said that she felt very much better both as regarded her general health and her hearing. I have since seen the patient on several occasions, and her hearing remained improved. I may say that the same preparation of pilocarpine was being used on other patients at the same time, and there was no doubt as to its quality.

I am, Sirs, yours faithfully,

Weymouth-street, W., Oct. 10th, 1893. G. CHARLES WILKIN.

"THE CENSUS AND THE MEDICAL PROFESSION."

To the Editors of THE LANCET.

SIRS,—Allow me to point out to you that the statement made in THE LANCET of Oct. 7th that in the recently published Census volume the medical profession is represented as consisting of 30,843 men and 54,392 women, and that no further explanation is to be found of these figures without going back to the corresponding volume for 1881, is completely erroneous. If the writer of your annotation had merely taken the trouble to refer to the place in the 1891 volume which corresponds to the place where he found the explanation in the 1881 volume, he would have found full details and have learnt that the medical suborder includes, besides 19,037 medical practitioners, 53,658 nurses and invalid attendants, as well as sundry other persons more or less directly connected with medicine.

Surely it is the duty of a writer, before he ventures to apply such terms as your annotator has done to a public report, prepared with great care and at great expenditure of time and money, to assure himself that the blunders of which he complains are really in the report, and not, as in this case, committed by himself. I trust to your fairness to give the same publicity to this contradiction as you have given to your annotator's mischievously erroneous statement.

I am, Sirs, yours faithfully,

BRYDGES P. HENNIKER, Registrar-General.

Census Office, Charles-street, Whitehall, London, S.W., Oct. 11th, 1893.

*** We find that the Registrar-General is right—i. e., that in the 1891 Returns, as in those of 1881, the explanation of the extraordinary representation of the numbers of the medical profession is given. But the gravamen of our charge remains. In the Census Returns the medical profession, which, of course, in legal language means only medical practitioners on the Register, is made to include dentists, dental apparatus makers, medical students, assistants, midwives, nurses, and invalid attendants, "*as well as sundry other persons more or less directly connected with medicine.*" We append a table from our contemporary the *Economist* (Aug. 26th), one of the most careful of statistical journals. The table purports to give the growth of the professional classes, and is as follows:—

	1891.	1881.	Increase.
National Government	79,241	50,859	+ 28,382
Local Government	64,851	53,493	+ 11,358
Clerical profession	58,642	51,120	+ 7,522
Legal profession	47,518	43,641	+ 3,877
Medical profession	85,235	64,548	+ 20,687
Teachers	200,594	171,831	+ 28,763
Artists, including musicians, actors &c.	79,115	58,517	+ 20,598

ED. L.

"THE PHYSIOLOGICAL EFFECTS OF HIGH-FREQUENCY ELECTRIC CURRENTS."

To the Editors of THE LANCET.

SIRS,—The harmlessness of high-frequency electric currents such as are used in the experiments of M. Tesla, Professor Elihu Thomson, M. d'Arsonval, the present writer, and others, has been the cause of some surprise. By means of such currents it has been found possible to transmit through the human body, without injury and practically without sensation, amounts of electrical energy that with continuous or ordinary alternating currents would certainly be painful and possibly fatal. In THE LANCET of Aug. 19th of this year Dr. W. S. Hedley ably discussed at some length the question of the actual strength of these currents and adopted the view, previously put forward by me in the *Philosophical Magazine* of February last, that these currents are harmless, chiefly because they are of small strength. Apart from some possible minor influences of the frequency and abruptness of alternation, it seems reasonable to suppose that the physiological effects of electric currents, whether continuous, pulsatory, or alternating, are mainly proportional to the actual quantity of electricity passed through the body—in fact, that they are proportional to the electrolytic effect, such as would be measured by passing the current (rectified, if necessary) through a voltameter and noting the amount of metal deposited. If this view is accepted, it has been pointed out to me by the Hon. Charles Parsons that, given sufficiently short impulses or oscillations of current, of sufficiently high average E.M.F. during each impulse and sufficient frequency, there is no limit to the amount of energy that can be harmlessly passed through the body, since there is theoretically under these conditions no limit to the amount of energy that can be conveyed by any given quantity of electricity. Take, for instance, the experiments where a 5 c.p. 100-volt lamp is brought to incandescence with high-frequency currents passed through the body. With a continuous or ordinary alternating current such a lamp requires 0·25 ampère, an amount that could scarcely be passed through the body without considerable sensation. The total heat imparted to a wire or lamp filament is proportional to the average drop in volts multiplied by the total quantity of electricity passed. This follows from Ohm's Law: electromotive force = current × resistance; heat = current squared × resistance; heat = current × electromotive force. Eliminating time, we have: heat = quantity of electricity × electromotive force. Now, if the electromotive force is increased, the quantity of electricity required to produce a given number of heat units is proportionally diminished. If, therefore, the 5 c.p. 100 volt lamp taking 0·25 of an ampère is brought to incandescence by short impulses of current, say at 10,000 volts average pressure during each impulse, the quantity of electricity passed in any considerable time would only be ·01 of that, were the 100 volts continuously applied for that time, or will be equal in quantity to only ·0025 ampère continuous current. The above explanation will be found treated more fully in the *Philosophical Magazine* for September last and assumes that the effects of self-induction are negligible. Where, however, self-induction does exist in the lamp filament a similar effect is produced owing to the increased resistance caused by the current travelling through the outside skin of the filament only, as I have previously suggested.

I am, Sirs, yours truly,

Victoria-street, S.W., Oct. 9th, 1893. A. A. C. SWINTON.

"UNQUALIFIED ASSISTANTS."

To the Editors of THE LANCET.

SIRS,—Surely the recent outcry against the employment of unqualified assistants is inconsistent to a degree when thousands of prescribing chemists are driving a thriving business throughout the metropolis and the provinces. "Pharmaceutical chemist" and "medical practitioner," as matters stand, are practically synonymous unless a death certificate is required, whilst the former is allowed to distribute circulars in the neighbourhood where he resides, vaunting his wonderful mixtures and unfailing cures for all the "ills that flesh is heir to." The amount of practice diverted in this way from the duly qualified and registered profession would go a long way to raise it from the slough of despond into which it has fallen.

I am, Sirs, yours faithfully,

London, Oct. 9th, 1893. OBSERVER.

MANCHESTER.

(FROM OUR OWN CORRESPONDENT.)

The Ship Canal.

IT has now been authoritatively stated that the Ship Canal will be opened for traffic throughout its entire length by Jan. 1st, 1894. The Ship Canal Company do not appear as yet to have overcome the difficulty caused by the entrance of an enormous quantity of sludge into the docks. Only last week the engineer in charge of the dredging operations presented a most important report on the subject to the Company, in which he placed some very unpleasant facts before the directors. He says that in the length of sewer lying between the racecourse and the Salford borough cemetery, which measures 4000 feet, there was in September last an accumulation of some 1300 cubic yards of sludge. The Ship Canal Company have communicated to the municipal authorities their fears that the next considerable flood will wash the whole of this accumulated deposit into the canal. There is no doubt that the sludge difficulty is a very serious one for the directors, and that the operations necessary to get rid of it after its deposit in the canal cause an enormous outlay and no little nuisance, both of which might be avoided if only the constituted authority would let it be known that they were determined to put a stop to the almost universal practice of turning refuse into the river, a practice that obtains amongst the manufactories higher up the Irwell and its tributaries. The Manchester Corporation have, according to statements made at last Wednesday's council meeting, been making steady progress of late with their new sewage works, and these will, at any rate, reduce the nuisance as far as the city is concerned. At that meeting the chairman of the Rivers Committee reported that the arrangements of the new sewage works were going on satisfactorily, and that, before the year was out, it was hoped that they would be able to treat by precipitation the whole of the sewage of the city. For the present the sewage from an area of 450 acres has been diverted and discharged at the storm overflow at Modewheel, thus avoiding the further silting up of the Ship Canal docks.

New Recreation Ground.

It has been decided to provide a new open space for the benefit of the inhabitants of the northern side of Manchester, which had not previously been well provided for in this respect. The site selected is that known as "Boggart Hole Clough," consisting of 145 acres. It is intended to use about eighty acres of the Clough for the purposes of a cemetery, the remainder being thrown open as a recreation ground and dedicated to the use of the public. The northern districts of the city are rapidly becoming denser, and the population, although of course far less numerous than in the older portions of the city, is nevertheless becoming so closely packed that it has become a matter of necessity to rescue a portion of the area from the rapacity of the jerry builder. At present land can be obtained at a reasonable cost; but in the course of a few years the whole district will be in the hands of building companies and land will then be procurable only at an enormous expense.

The Cholera Scare.

For the last three weeks Manchester appears to have been free from suspicious cases of choleraic disease. As is usual at this period of the year, cases of choleraic diarrhœa occur frequently in public and Poor-law practice, but it is reassuring to find, from the official weekly health returns, that no cases simulating true cholera have appeared in Manchester since the middle of last month. The fatal cases of ordinary summer diarrhœa amongst children are also rapidly becoming fewer in number; and although scarlet fever is prevalent at the present time the health of the city may be said to be, with that one exception, in every way satisfactory.

The Colliers' Strike.

In consequence of the strike amongst colliers in Manchester and its neighbourhood the poorer classes are suffering great hardships from the scarcity of coal, as much as 2*s.* 6*d.* per cwt. being charged for inferior coal in certain districts of the city. At the last meeting of the city council a proposal to reduce the price charged for coke at the various gasworks owned by the Corporation was the subject of considerable discussion. It was contended that inasmuch as a very large portion of the poorer classes were obliged to buy fuel in

small quantities at an increased cost much hardship was inflicted upon them at a time when they were suffering great distress in consequence of the coal strike. A motion was submitted that coke should be supplied in small quantities from the Corporation gasworks at a reduced price, the understanding being that the reduction should last only so long as the existing distress continued. The resolution, however, was not adopted, because of alleged difficulty in distinguishing between the really deserving poor and others who might take unfair advantage of the action of the Corporation. One thing, however, is certain—that unless either the coal strike comes to an end very shortly or the weather remains mild and temperate until an unusually late period of the year, the present coal famine will cause terrible distress in Manchester, and it is difficult to see how this can be averted by the proposed action of the Corporation. Soup kitchens and other movements for the relief of distress amongst the families of the colliers on strike have been in operation for some weeks past, and large numbers of men and women out of work have been perambulating the streets in the suburbs asking for subscriptions and representing that great distress prevails amongst the whole fraternity of colliers.

Oct. 10th.

LIVERPOOL.

(FROM OUR OWN CORRESPONDENT.)

Reception at the Town Hall to Hospital Physicians and Surgeons and Nurses.

THE Lord Mayor and Lady Mayoress entertained at the town-hall, on two evenings during the last week of September, the physicians and surgeons at nearly all the hospitals, the nurses being also invited. It was a sight as pleasing as it was novel, and it is to be hoped that it will not be the last entertainment of the kind. The suite of rooms at the Liverpool town-hall is said to be the finest in the kingdom, and it is surprising how many persons, who have lived and laboured in this city for many years, have never had an opportunity of seeing them. On each of the two evenings 300 nurses were present, the uniform dresses forming a pleasing variety, and a very agreeable evening was spent in each instance. The lives of those who work in hospitals are somewhat monotonous, and to those who were present it was an occasion to be remembered.

Opening of the Winter Session at the Medical Institution.

The first meeting at the Medical Institution for the present session took place on Thursday, the 5th inst., when 150 members and associates were present. The President, Dr. Glynn, delivered an address on Excessive Mental Excitement and some of its Causes. It was a very able address and was very well received.

Oct. 11th.

NORTHERN COUNTIES NOTES.

(FROM OUR OWN CORRESPONDENT.)

Tyne Port Sanitary Authority and Cholera Precautions.

AT the last meeting of the Tyne sanitary authority it was stated that the Norwegian Consul had made application for £5, being the cost of a seaman's clothes which had been destroyed after his death from cholera. This was allowed after some discussion, on the understanding that it was not to be made a precedent; but if the authority could destroy every cholera-infected suit of clothes in their river at a cost of £5 each it could not be considered extravagant by any reasonable person. There is a time for economy, but the expenditure of a few pounds to prevent a plague from obtaining a footing in the country might be prudent. Probably the £5 which was paid represented this sailor's whole effects, for seamen have rarely more clothes than they stand up in. The report of the medical officer of health showed that for two months there had been only one case of Asiatic cholera—namely, that on board the *Jeannie*, which was reported some time ago. There had been several cases of diarrhœa, but none were of a very serious character. It was stated that the late cholera precautions had cost the authority £135. At the last meeting of the sanitary committee typhoid fever was reported to be prevalent at Middlesbrough. The death-rate was high—viz., nearly 39 per 1000, against 24 per 1000 at the corresponding period of last year. The epidemic of diarrhœa had continued, causing 41 deaths, mostly amongst children, but there had been two deaths from this cause in adults.

Bequests &c.

Miss Dorothy Burnup, late of Newcastle-on-Tyne, left about £4000 to local and other charities, including the Newcastle Royal Infirmary. The late Mr. Lupton W. Dawson of Wood Cottage, Baildon, left nearly £24,000 to charitable institutions—the Sir Titus Salt's Hospital, Saltaire, Ilkley Hospital and Bath Hospital, Harrogate, each receiving £4000, whilst the Bradford Eye and Ear Infirmary and the Bradford Institution for the Blind benefit to the extent of £2000 each. The friends and supporters of the Northern Counties Institution for the Blind at Newcastle will be pleased to learn that the Duke of Northumberland has forwarded £500 towards its building extension fund, and that Earl Percy has contributed £50 towards the same object. The fifth quinquennial festival of the Royal Albert Asylum for Idiots and Imbeciles of the Northern Counties will be held at Lancaster this year and will take place on the 13th inst.

The Prevalence of Typhoid Fever in Durham County.

Typhoid fever is reported to be prevalent in the Washington, Usworth and Houghton districts of Durham. In some houses as many as three patients, mostly young people, are suffering from the malady.

Liberality of Elswick Workmen.

The workmen at Elswick during the past three months contributed nearly £300 to the Royal Infirmary and other medical charities of the city. The Elswick works are large, but its workmen show a commendable and large-hearted liberality.

Newcastle-on-Tyne, Oct. 10th.

IRELAND.

(FROM OUR OWN CORRESPONDENT.)

Proposed Memorials to Surgeon-Major Parke.

A MEETING, presided over by the President of the Royal College of Surgeons was held at the Shelbourne Hotel, Dublin, on the 9th inst., for the purpose of appointing committees (general and working) and opening a fund to erect a memorial in honour of Surgeon-Major Parke. Sir George H. Porter, Bart., moved the following resolution: "That, in view of the conspicuous services of the late Surgeon-Major Thomas H. Parke, A.M.S., it is desirable that a permanent memorial be raised to perpetuate his name and his life-work, and that a committee be appointed to give effect to this resolution, with power to add to their number." Dr. William Moore seconded the motion, which was adopted. A short discussion took place as to what form the memorial should take. Surgeon-General Colles thought that a statue in Dublin would be the best form, but he was anxious that the members of the deceased's family and the committee of subscribers should be given an opportunity of having their suggestions attended to. Mr. Henry M. Stanley has sent a subscription of £50 towards the fund. A memorial window in memory of Surgeon-Major Parke will shortly be placed in Ballybay church, as he acted for some time as dispensary medical officer in the Ballybay district. The subscription, limited to half-a-crown, is confined to members of the medical profession, and additional subscriptions to those already received can be forwarded to the Rev. A. B. Young, The Rectory, Ballybay.

Proposed Amalgamation of two Dublin Ophthalmic Hospitals.

It is stated that the long-talked-about amalgamation of the National Eye Infirmary and the St. Mark's Ophthalmic Hospital has at last reached a satisfactory stage. A draft agreement has been prepared and settled by counsel representing both institutions, and it now only remains to have some matters of detail agreed upon before the hospitals make a joint appeal to the public for the necessary funds. Several years must elapse before the new hospital is properly established and the two ophthalmic institutions are placed under one roof.

Lunatics in Workhouses.

At a recent meeting of the guardians of the North Dublin union Dr. Eustace, in accordance with a notice of motion, proposed the following resolution: "That a deputation of the Board of Guardians of the North Dublin Union do wait upon the Right Hon. John Morley, Chief Secretary for Ireland, to represent that in the opinion of this board it is most unsuitable that lunatics of any class should be inmates of workhouses intended for the relief of the destitute poor of Ireland." He had no fault to find with the treatment of lunatics in workhouses, but it was impossible to care for them in workhouses as they ought to be cared for. There were between 4000 and 5000 inmates in the various workhouses, and Mr. Morley, when his attention was called to the position of lunatics in them, said that he would "look into the matter and try to put a stop to this horrible state of affairs." He pointed out the remedy, which was to carry out the law as it is at present, which is that before an insane person is received into any place there must be a medical certificate. If the lunatics were confined to the asylums it would be better for them. The resolution was adopted unanimously.

A Convalescent Home for Cork.

Sir John Arnott, D.L., a successful merchant and charitable citizen of Cork, has promised to present a home for convalescent patients to that city, and in conjunction with the medical staff of the Cork hospitals has taken steps to carry out the proposed scheme. Youghal, a seaside resort, has been selected for its mild climate and pure air, and on visiting it last week the medical staff with some local practitioners examined several places in order to obtain a suitable site. Ultimately they selected a place called Longville, situated on Knockanery Hill, overlooking Youghal Bay and the sea beyond, having a southerly aspect, and sheltered from the northerly winds by rising grounds behind. It is expected that the home will shortly be in working order.

St. Vincent's Hospital.

The introductory lecture will be delivered on the 27th inst., the lecturer being Mr. M. Cox. On the evening of the same day the annual dinner of the staff and past students will take place.

Supplementary Examination.

A supplementary preliminary examination will be held on Oct. 31st and Nov. 1st for candidates for the licences of the Royal Colleges of Physicians and Surgeons.

Oct. 10th.

PARIS.

(FROM OUR OWN CORRESPONDENT.)

Supra-clavicular Inspiratory Depression a Physical Sign of Early Phthisis.

IN the current number of *La Semaine Médicale* Dr. Revillet draws attention to the above phenomenon, which, if I mistake not, constitutes a novelty in auscultatory observations as applied to pulmonary tuberculosis. Every practitioner knows how extremely difficult the diagnosis of early phthisis may be and how important it is to have this point settled. The search for bacilli in any sputa that may be expectorated is in these cases most helpful; but one may have to wait a long time before any micro-organisms can be detected. In like manner dulness on percussion and crepitation may be absent, and we have to rely on the presence of such delicate signs as rough, feeble, and wavy breath sounds in solving the problem. In weak girls the detection of feeble and staccato respiration at the apex may mean nothing; but, according to Dr. Revillet, if to such ambiguous signs is added unilateral inspiratory depression of the supra-clavicular fossa the presence of tuberculous pleurisy of the apex may be unhesitatingly affirmed, this sign being pathognomonic of the lesion. It may be absent, however, in cases of apical pleurisy where adhesions co-exist consecutive to diaphragmatic or parietal pleurisy, for in such instances the play of the apex of the lung is interfered with. In five post-mortem examinations of patients in whom during life this supra-clavicular inspiratory depression had been noted thick and tough adhesions of the corresponding apices were observed. In two instances atrophy of the platysma myoides and of other muscles of that region was observed. If, in such a case, traction is made on the lung from below (after liberating any parietal adhesion that may coexist) the phenomena may be easily reproduced. It must not be forgotten that evident signs of early phthisis may be masked by the râles of bronchitis, and here, again, Dr. Revillet's sign may prove to be of use. When the tuberculous process is more advanced both apices become attacked and the sign loses its significance; but in this case, again, the greater amplitude of the depression at one apex enables the medical attendant to say that that apex was the first attacked. In a period of four years Dr. Revillet has proved in the post-mortem room that these apical adhesions may disappear; and, in fact, this observer tells us that, as the tuberculous deposit may be limited to the pleura, and as, moreover, these adhesions may be absorbed, a comparatively favourable prognosis may be made in these cases. Of twenty-six cases kept under observation during four years only one terminated fatally, the rest remaining *in statu quo* or becoming only very slowly worse. It is even highly probable that many *tuberculeux sans le savoir* enter into this category. It is certain that cicatrised apical lesions are often met with at necropsies of aged people.

The Value of Injections of Mallein in the Detection of Latent Glanders.

For some time past the Urban Cab Company of Paris has sustained great loss from the existence in an endemic state of glanders in their stables. Despite the fact that every suspected horse was immediately killed and that its neighbours were isolated, the endemic was fed by latent cases. How were these latent cases to be detected? The required test appears to have been discovered in mallein. Its employment in subcutaneous injections on 4350 horses was followed in 562 instances by the characteristic rise of temperature. These 562 animals were slaughtered, and the necropsies revealed unmistakable evidence of the presence of glanders, the existence of which could not possibly have been suspected *ante mortem*. In only four cases did the test fail. The report thereon, which was presented to the Academy of Medicine on Oct. 3rd by M. Alexandre, was referred to the Commission des Epidémies.

The Disposal of Old Dressings at the Paris Hospitals.

Some twenty years ago I acted as house surgeon's assistant at a hospital in the county of Sussex. Pre-Listerian methods of dressing wounds were then in vogue and linseed poultices reigned triumphant. Running parallel with and behind the hospital was a row of houses which, although endowed with a most attractive name, was currently known to the older inhabitants as "Poultice-row" from a habit formerly in use amongst the "Gamps" of the said institution of "flinging" aged cataplasms "over the garden wall." So far as I know, no such primitive method of disposal of dressings has ever existed in Paris; but it is certain that until a few years ago old bandages and cotton-wool taken from the surgical wards were sold as perquisites by the *garçon de salle* to the *chiffonniers*, which thrifty beings, after having subjected the débris to a perfunctory process of washing, resold them to—*horresco referens!*—manufacturers of cigarette-paper. In order to put an end to this scandalous state of things all the old *objets de pansement* were ordered to be burnt in the ward or bath-room stoves; in recent years, however, the quantity of cotton-wool used for dressings has increased so enormously that a special apparatus had to be invented for this incineration. After a series of experiments conducted at the Lariboisière Hospital a form of combustion stove has been adopted for the purpose, and now all the hospitals of Paris are supplied with it. Lovers of the fragrant weed may, therefore, continue to smoke their cigarettes without entertaining any misgivings as to the origin—nosocomial or other—of the paper employed.

Sanitary Precautions at French Schools.

The Minister of Public Instruction has promulgated the following regulations concerning infectious diseases which may occur at any school. Directly any such disease breaks out the medical inspector may order them to be put in force. They are: for small-pox, exclusion of any sick child for a period of forty days and re-vaccination of all the masters and pupils; for measles, exclusion of the sick for sixteen days, destruction of books, and holidays for all pupils under six years of age; for diphtheria, exclusion of the sick for thirty days, successive disinfections, and no fruit to be consumed by the children during play time; for scarlet fever, the same as for small-pox, and the school is to be closed should several cases occur in the first five days after the outbreak; and for ringworm successive evictions of affected pupils and readmission after treatment.

Paris, Oct. 10th.

RUSSIA.

(FROM OUR OWN CORRESPONDENT.)

The Cholera Epidemic.

THE number of cases of cholera and the deaths resulting from the disease in the St. Petersburg hospitals during the week ending Sept. 23rd were: cases, 295; deaths, 137. At the same date there remained under treatment 257 cases. The later returns show distinct evidence of the abatement of the epidemic. The largest number of admissions on any one day was on Sept. 6th–7th, when 63 fresh cases were recorded. During the last few weeks a great many persons have been attacked with symptoms of acute gastro-intestinal disturbance, which yielded easily to treatment and had nothing in common with the symptoms of true Asiatic cholera. Such cases have been described as gastric forms of influenza, a disease which still lingers, and is indeed endemic, in the Russian capital. The epidemic, however, whilst increasing in certain governments, particularly those of Volhynia, Lomsha, and St. Petersburg (excluding the capital), is abating in a majority of the provinces.

Pharmaceutical Societies in Russia.

The Pharmaceutical Society of St. Petersburg last week celebrated the seventy-fifth year of its existence. This is the oldest society of the kind in Russia with the exception of the Pharmaceutico-Chemical Society of Riga, which was founded in 1802. The St. Petersburg Society consists of 75 honorary, 160 ordinary, and 50 corresponding members. It publishes a journal of its own, the *Pharmaceutical Journal*, which is printed in both the Russian and German languages. Eight other towns in Russia possess pharmaceutical societies—namely, Moscow, Warsaw, Dorpat, Kazan, Kief, Odessa, Kharkof, and Mittau.

Pixol: a Cheap Disinfectant.

In a supplement to the *Army Medical Journal*, Dr. Eberman reports favourably upon a cheap disinfectant introduced by Dr. Raptchevski under the name of Pixol. It is prepared as follows: In 3 lb. (36 oz.) of tar is dissolved 1 lb. (12 oz.) of green soap. To this is added slowly a solution of a caustic alkali, either potash or soda, containing 25 Zolotriks—that is, very slightly over 3½ oz.—of the alkali, to 36 oz. of water. When required for use 1 part of the thick syrupy fluid thus formed is added to 19 parts of water, forming a 5 per cent. solution of Pixol. This strength is used for disinfecting linen and for washing the hands. For dejecta a 10 per cent. solution is recommended. Such a solution has been proved to be fatal to the bacillus anthracis, the typhoid and cholera bacilli, and to the cocci of suppuration. Extreme cheapness is claimed for this form of disinfectant, the cost per pound being about one penny.

THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

A QUARTERLY MEETING of the council of the Royal College of Surgeons was held on Thursday, the 12th inst., Mr. J. W. Hulke, President, in the chair.

The minutes of the ordinary meeting of the council of July 27th were read and confirmed.

The council then proceeded to a consideration of the draft report, as prepared by the committee appointed for the purpose, to be presented to the Fellows and Members at the meeting to be held on Nov. 2nd. This report was approved and adopted, and will be sent to the Fellows of the College on the 19th of this month. It may also be obtained by any Member of the College on or after that date on application to the Secretary.

Mr. J. W. Hulke was re-elected a member of the Committee of Management, and Mr. H. Power was re-elected a member of the Laboratories Committee.

On the motion of Mr. Howse, seconded by Mr. Macnamara, it was agreed (1) that a committee be appointed to consider the desirability of convening regular meetings of the Fellows (apart from the Members) for the consideration of questions which may be reported to them from the council, or which may be initiated by themselves; (2) that if such meetings be desirable the committee be requested to develop a scheme of organisation for them; and (3) that the resolution of July 27th last from the Association of Fellows, "That the council of the Royal College of Surgeons of England be asked to arrange that the meetings of the Fellows, separately from the Members, be summoned regularly and be properly organised after the model of Convocation of the University of London," be referred to the committee to consider and report thereon to the council.

A letter of Aug. 3rd last from the Secretary of State for the Home Department was read stating that Her Majesty the Queen was pleased to receive very graciously the address of congratulation from the College on the occasion of the marriage of their Royal Highnesses the Duke and Duchess of York.

A letter of Aug. 5th last from Sir Francis Knollys was read thanking the council and Fellows, by desire of their Royal Highnesses the Prince and Princess of Wales, for their address of congratulation on the occasion of the marriage of their Royal Highnesses the Duke and Duchess of York.

The thanks of the council were directed to be sent to the family of the late Sir Richard Owen for their gift of an interesting and valuable collection of papers and drawings relating to the College and museum.

Medical News.

UNIVERSITY OF CAMBRIDGE—EXAMINATION IN SANITARY SCIENCE.—The following candidates have satisfied the examiners in both parts of the examination, and have become entitled to the diploma in Public Health:—

William J. T Barker, Arthur H. Boucher, Albert Bowhay, E. R. W. C. Carroll, Edward J. Cross, Cecil W. Cunnington, Harry L. Dixon, Walter Dowson, Samuel A. Ewing, Samuel Fleming, Richard J. Fox, Frederick C. Goodwin, William T. Hannah, Frederick G. Haworth, Alexander Johnston, William Watkins Jones, James E. McDougall, William G. Macpherson, James Richmond, Arthur H. Robinson, Nelson C. Sclater, Harold Scurfield, Herbert Williams, and George M. Winter. The Examiners were Dr. Arthur Ransome, Dr. W. H Corfield, Dr. J. Lane Notter, and Dr. R. Thorne-Thorne.

ROYAL UNIVERSITY OF IRELAND.—The following have passed the Second Examination in Medicine of the University:—

Upper Pass Division.—**Robert P. Farman, David W. Hewett, Andrew McArdle, Francis J. McKenna, John J. McMurty, Hugh J. McNabb, William W. Moore, and George C. Welpy.**

All the above may present themselves for the further examination for Honours.

Pass Division.—**James P. Barry, Harry F. Brown, Michael Burke, Samuel D. Clements, Samuel Connor, Hugh Carrell, John H. Davis, Richard E. Devitt, David Fleck, Edward S. Dorman, Edmond J. Kelleher, John Kennedy, James St. L. Kirwan, George Liddle, Joseph McArdle, John McCarthy, Edward McDonald, Patrick W. McHugh, Alfred S. Moore, Jeremiah O'Neill, William A. Osborne, James Park, Harry Patterson, Benjamin Shaw, Frederick Shawe, Robert J. Smith, Robert C. Stuart, Joseph Whelan and Clara L. Williams.**

Doctor in Medicine.—**Martin Dempsey, Eleanora L. Fleury, Andrew Fullerton, Richard E. Harcourt, Michael C. Staunton, and John Joseph Tobin.**

ROYAL COLLEGES OF PHYSICIANS AND SURGEONS IN IRELAND; CONJOINT SCHEME.—The following have passed the First Professional Examination:—

Four Years' Scheme: H. E. Blake, V. F. Connor, B. A. Craig, and F. C. Fowler. Five Years' Scheme—Completed Examination: Miss R. Berthon, F. Hall, M. J. Hynes, N. J. Keller, G. Kennedy, W. F. Kennedy, S. G. Longworth, T. J. Lynch, and D. J. O'Meara. Passed in Anatomy: R. L. Davies, T. F. Loughrey and T. A. Rooke. Passed in Biology: R. L. Davies and T. A. Rooke. Passed in Pharmacy: T. A. Rooke.

THE SOCIETY OF APOTHECARIES OF LONDON (PRIMARY EXAMINATION).—The following candidates have passed in the subjects indicated below:—

Chemistry, Materia Medica, Botany, and Pharmacy. **F. M. Cooper, Royal Free Hospital; R. Jones, Edinburgh; and T. W. Joy, Guy's Hospital.**

Chemistry.—**A. Ross, Guy's Hospital.**

Materia Medica, Botany, and Pharmacy.—**R. B. Allen, St. Mary's Hospital; P. S. Kesteven, St. Bartholomew's Hospital; F. A. Storr, Leeds; A. M. Williams, Royal Free Hospital; and E. Wooton, Charing-cross Hospital.**

Materia Medica and Botany.—**E. H. Forjett, Edinburgh; and E. M. Guthrie, Royal Free Hospital.**

Anatomy and Physiology.—**T. Christie, Liverpool; F. C. Collinson, Leeds; C. H. Dearden, Leeds; H. G. Killery, Middlesex Hospital; A. P. B. Ellis, St. George's Hospital; P. S. Kesteven, St. Bartholomew's Hospital; C. H. Maskew, Birmingham; M. Sharp, Royal Free Hospital; G. S. Thompson, St. George's Hospital; H. de P. B. Veale, Leeds; J. B. Wall St. Mary's Hospital; and H. A. L. Willis, St. Mary's Hospital.**

Anatomy.—H. K. Palmer, St Bartholomew's Hospital; W. O. Piper, Westminster Hopital; E. A. Quirke, Birmingham; and R. Rudland, Middlesex Hospital.
Physiology.—E. M. Aikin, Royal Free Hospital; A. M. Browne, Royal Free Hospital; M. S. S. Coghill, Royal Free Hospital; J. W. A. Cooper, King's College; R. E. Demartini, King's College; M. P. Gabe, Middlesex Hospital; F. C. Gould, Birmingham; G. P. Y. Hulbert, Birmingham; W. R. Kemp, St. Mary's Hospital; H. C. Moore, Leeds; M. Orange, Royal Free Hospital; and E. M. Wells, Royal Free Hospital.

The diploma of this Society entitles the holder to practise Medicine, Surgery, and Midwifery, and enables him to compete for medical appointments in the Army, Navy, and India Service, and also for Poor-law appointments.

THE EYESIGHT OF BOARD-SCHOOL CHILDREN.—In accordance with instructions from the Education Department to the London School Board, with reference to the eyesight of the children under the control of Board-school teachers, returns have been forwarded to the department on the subject. We have been favoured with a copy of the return sent in by the Upper Edmonton School, by which it appears that of the total number of children—namely, 4384—464 were unable to comply with the conditions of the test—a modified Snellen distance type. The parents or guardians of the children thus shown to have defective sight were at once apprised of the fact and recommended to seek skilled advice, and the result was that many of these little ones went to school provided with glasses.

THE FACULTY OF PHYSICIANS AND SURGEONS OF GLASGOW.—At a recent meeting of this corporation the following office-bearers were elected for the ensuing year:—President: Dr. David Yellowlees.—Visitor: Dr. Bruce Goff.—Councillors: The President (*ex officio*), the Visitor (*ex officio*), the Treasurer (*ex officio*), Dr. Thomas Lapraik, Dr. A. L. Kelly, Dr. James Dunlop, Dr. H. C. Cameron (as Representative to the General Medical Council), Dr. W. J. Fleming, Dr. Robert Perry, Dr. John Glaister, Dr. J. D. Maclaren (treasurer), Dr. James Finlayson (honorary librarian), and Dr. Hugh Thomson (vaccinator).—Board of Examiners for the Licence: Mr. E. Maylard, surgery and surgical anatomy; Mr. J. Robertson Watson, chemistry; Dr. Samson Gemmell, medicine and materia medica; Dr. Ebenezer Duncan, medical jurisprudence; Dr. William L. Reid, midwifery; Dr. Alexander Patterson, surgery and surgical anatomy; Dr. John Dougall, chemistry; Dr. Samuel Sloan, midwifery; Mr. H. E. Clark, anatomy; Dr. John Barlow, physiology; Mr. David Knox, surgery and surgical anatomy; Dr. J. Wallace Anderson, medicine and materia medica; Mr. T. Kennedy Dalziel, medical jurisprudence; Dr. James Dunlop, surgery and surgical anatomy; Mr. J. M'Gregor Robertson, physiology; Dr. James A. Adams, anatomy; Dr. Neil Carmichael, chemistry; Dr. Alexander M. Buchanan, anatomy; Dr. H. C. Cameron, surgery and surgical anatomy; Dr. William J. Fleming, physiology; Dr. James Stirton, midwifery; Dr. Alexander Napier, materia medica; Dr. John Glaister, medical jurisprudence; Dr. John Barlow, elementary biology; Mr. H. E Clark, elementary biology; Mr. Edward Prince, elementary biology; Dr. Neil Carmichael, physics; Mr. James Blyth, physics; Mr. A. Freeland Fergus, physics.—Board of Examiners for the Fellowship: Dr. A. M. Buchanan, Dr. J. A. Adams, Mr. H. E. Clark (anatomy, comparative and human); Dr. Thomas Barr, Dr. J. Walker Downie (aural surgery); Dr. E. Duncan, Dr. P. A. Simpson, Dr. T. Kennedy Dalziel (medical jurisprudence); Dr. J. W. Anderson, Dr. J. D. Maclaren, Dr. S. Gemmell (medicine); Dr. James Stirton, Dr. Samuel Sloan, Dr. W. L. Reid (midwifery and diseases of women); Dr. Thomas Reid, Dr. A. F. Fergus (ophthalmic surgery); Dr. J. Lindsay Steven, Dr. Charles Workman, Dr. Joseph Coats (pathology); Mr. J. M'Gregor Robertson, Dr. W. J. Fleming, Dr. John Barlow (physiology); Dr. D. Yellowlees, Dr. Alexander Robertson (psychological medicine); Dr. J. B. Russell, Dr. M. John Glaister, Dr. N. Carmichael (State medicine); Dr. Alexander Patterson, Dr. H. C. Cameron, Mr. D. N. Knox (surgery). In Clinical Medicine and Surgery: The Physicians and Surgeons of the Royal and Western Infirmaries, being Fellows of Faculty. Examiners for Qualification in Public Health: Dr. J. B. Russell, Dr. John Glaister, Dr. Neil Carmichael, Dr. A. Freeland Fergus, Dr. Samson Gemmell, Dr. W. J. Brock. Examiners in Dentistry:—Fellows of Faculty: Dr. A. L. Kelly, medicine and materia medica; Dr. A. M. Buchanan, anatomy and surgery; Dr. John Dougall, physiology and chemistry. Registered Dentists: Mr. W. Stead Woodburn, mechanical dentistry; Dr. J. Cowan Woodburn, dental anatomy and physiology; Mr. James R. Brownlie, dental surgery.

WESTMINSTER HOSPITAL MEDICAL SCHOOL.—The following gentlemen have obtained entrance scholarships at the above school—viz., Mr. H. T. Barron, £60; Mr. F. F. Bond, £40.

UNIVERSITY OF ABERDEEN.—The following is the list of gentlemen who have been appointed to be extra-professorial examiners for graduation in medicine for the current year:—Botany: R. J. Harvey Gibson, M.A. Aberd., Liverpool. Zoology: J. A. Thomson, M.A. Edin., Edinburgh. Chemistry: John Hunter, F.I.C., F.C.S., Edinburgh. Anatomy: Bertram C. A. Windle, M.D., D.Sc. Dub., Birmingham. Physiology: George N. Stewart, M.D. Edin., Cambridge. Materia Medica: Francis Warner, M.D. Lond., London. Medical Jurisprudence and Public Health: Francis J. Allan, M.D. Edin., London. Pathology: James Lorrain Smith, M.A., M.D. Edin., Cambridge. Medicine: Sidney Coupland, M.D. Lond., London. Surgery: John C. Ogilvie Will, M.D. Aberd., Aberdeen. Midwifery: G. M. Edmond, M.D. Aberd., Aberdeen.

ST. THOMAS'S HOSPITAL MEDICAL SCHOOL.—The following is the list of prizes awarded for the Winter Session, 1892-93:—Entrance Science Scholarships: A. W. Sikes, Garrycloyne, Blarney, First Scholarship and Certificate of Honour; C. G. Seligmann, Maida-vale, Scholarship, £60, and Certificate of Honour. First Year Students: A. W. Sikes, Garrycloyne, Blarney, the William Tite Scholarship, £27 10*s.*, and Certificate of Honour; J. P. Scatchard, Boston Spa, College Prize, £20, and Certificate of Honour; L. Gilbert, Finchley-road, C. G. Seligmann, Maida-vale, equal, College Prize, £10, and Certificates of Honour; W. J. Fanning, Lexham-gardens, and H. J. Marriage, Aldgate, Certificates of Honour. Second Year Students: M. Takayasu, Japan, the Musgrove Scholarship, £38 10*s.*, and Certificate of Honour; A. J. Martineau, Lupus-street, College Prize, £20, and Certificate of Honour; A. H. Stewart, Regent's-park, College Prize, £10, and Certificate of Honour; J. C. Harcourt, South Woodford, Certificate of Honour. Third Year Students: G. G. Genge, Croydon, College Prize, £20, with second tenure of Peacock Scholarship, and Certificate of Honour; E. L. Perry, St. George's-square, College Prize, £15, and Certificate of Honour; E. O. Thurston, Panton-street, and W. E. F. Tinley, Whitby, equal, College Prize, £10, and Certificates of Honour. *Prizes for Summer Session, 1893.*—First Year Students: A. W. Sikes, Garrycloyne, Blarney, College Prize, £15, and Certificate of Honour; J. P. Scatchard, Boston Spa, College Prize, £10, and Certificate of Honour; A. Osborne, Bath, and H. J. Marriage, Aldgate, Certificates of Honour. Second Year Students: J. C. Harcourt, South Woodford, College Prize, £15, and Certificate of Honour, and M. Takayasu, Japan, College Prize, £10, and Certificate of Honour, equal. Third Year Students: G. G. Genge, Croydon, College Prize, £15, and Certificate of Honour; W. E. F. Tinley, Whitby, College Prize, £10, and Certificate of Honour; E. L. Perry, St. George's-square, Certificate of Honour. *Certificates of Honour, 1892-1893.*—Anatomical Registrars: G. G. Genge, L. J. Miskin. Prosectors: J. C. Harcourt, A. J. Martineau, M. Takayasu, A. Warner. Assistants in the Physiological Laboratory: H. C. Crouch, W. D. Frazer, P. W. Kent, E. H. T. Nash, E. L. Perry, R. G. Strange. Pathological Assistants: H. M. Harrison, H. M. Moore, S. W. F. Richardson, A. E. Russell, E. A. Saunders. House Physicians: W. A. Bowring, W. Watkins-Pitchford, C. S. Jaffé, A. R. O. Milton; non-resident: W. P. Fooks, A. Dalzell, E. M. Hainworth, M. R. P. Dorman. House Surgeons: A. Banks, H. Burden, J. H. Fisher, P. J. Atkey, W. P. Purvis, R. R. Law, W. G. Sutcliffe, W. L. Wainwright. Assistant House Surgeons: A. Banks, J. H. Fisher, R. R. Law, W. G. Sutcliffe, W. P. Purvis, W. L. Wainwright, C. S. Wallace, E. Smith. Obstetric House Physicians: Senior—W. L. Wainwright, T. H. Haydon, C. S. Wallace, R. K. Ellis; Junior—C. Latter, C. S. Wallace, R. K. Ellis, W. A. Bowring. Ophthalmic House Surgeons: J. Fisher, E. P. Isaacs. Clinical Assistants in the Special Departments: Throat—M. R. P. Dorman, T. W. Hicks, H. J. Frederick; Skin—C. P. Lovell, A. H. Woodcock, G. W. H. Bird; Ear—H. J. Frederick, A. E. Price, L. D. Gover. *Medals.*—Practical Medicine: E. A. Saunders, Balham, The Mead Medal, founded by Mr. and Mrs. Newman Smith; A. E. Russell, Greenwich, Certificate of Honour. Surgery and Surgical Anatomy: S. W. F. Richardson, Whitby, the Cheselden Medal, founded by the late George Vaughan, Esq. For General Proficiency and Good Conduct: S. W. F. Richardson, Whitby, the Treasurer's Gold Medal.

ABERDEEN UNIVERSITY — UNVEILING OF THE KILGOUR BUST.—The ceremony of unveiling the marble bust of the late Dr. Kilgour, which has been presented to Aberdeen University by his son, took place at Marischal College on Monday, the 9th inst. Mr. Kilgour formally handed over the bust to the custody of the University Court, and the Marquis of Huntly, Lord Rector, in accepting it, spoke of Dr. Kilgour as a "strong, robust, shrewd, gnarled and learned physician," who had done yeoman service for the Aberdeen Medical School. The bust, which is an excellent likeness by Mr. Joseph Whitehead, stands on a polished granite pedestal in the Graduation Hall, opposite that of the late Dr. Matthews Duncan.

ST. MARY'S HOSPITAL, PADDINGTON.—The annual dinner of the past and present students of St. Mary's Hospital Medical School was held at the Hôtel Métropole on Wednesday, Oct. 4th. Mr. Herbert W. Page, F.R.C.S., Surgeon to the hospital, took the chair, supported by Sir W. H. Broadbent, Professor Buchanan, Dr. Danford Thomas, Mr. J. R. Cundell, J.P., Deputy-Surgeon-General Jeffcoat, Mr. George P. Field (Dean), and Messrs. J. Ernest Lane and E. Murray, the Hon. Secretaries of the Dinner. Covers were laid for 120. The usual loyal toasts having been proposed, the Chairman submitted that of the "Army, Navy, and Reserve Forces," which was responded to respectively by Surgeon-Major Hayes, D.S.O., Staff Surgeon Preston, R.N., two distinguished "old boys," and Colonel Stanley Bird, chairman of the Hospital Board of Management. Mr. Page then proposed the toast of the evening—that of "St. Mary's," and in an animated speech, after reviewing the history and growth of the Hospital and Medical School, its losses and successes, evoked loud cheers by his reference to the honour recently conferred on Sir W. H. Broadbent, Bart. The toast of "The Staff" was proposed by Brigade-Surgeon-Lieutenant-Colonel Myers and was responded to by Sir W. H. Broadbent, who attributed a great share of their success to the "spirit of accord" existing between the staff and the students. Dr. Lees having proposed "The Dean" in eulogistic terms, Mr. Field, in a humorous speech, amused his listeners by reminiscences of bygone days, and, after referring to the "Clarence Memorial Wing," elicited loud applause by the announcement that, great as had been the growth of the Medical School, they all had to congratulate themselves upon the fact that this year they had had the largest entry on record. After the health of "The Chairman," proposed by Dr. Handfield-Jones, had been drunk and briefly responded to, the company dispersed, one of the most successful dinners being brought to a close amidst great enthusiasm.

BEQUESTS AND DONATIONS TO HOSPITALS.—The late Mr. Charles Ganderton has bequeathed £7000 to the Worcester Infirmary.—The Treasurer of the Rotherham Hospital, has received £30 2s. from the Rotherham Borough Police Cricket Club.—Mr. Charles Wallis, late of Hartfield, Sussex, has bequeathed £100, each to the Tunbridge Wells Hospital, the Royal Windsor Infirmary, and the Egham Cottage Hospital, and £50 to the Newick Cottage Hospital.—Mr. John Horniman, late of Croydon, has bequeathed £10,000 to the North Eastern Hospital for Children, and £5000 to the London Temperance Hospital.—The late Mr. Thomas Buckmaster, of the Grove-road, Brixton, has bequeathed £400, each to the Middlesex Hospital, the Westminster Hospital (Broad Sanctury), St. Thomas's Hospital, and King's College Hospital, and £300 to the British Home for Incurables, Clapham.—The late Mr. William Bedford, of Grantham, has bequeathed £200 to the Grantham Hospital.—Mr. Richard Vaughan, late of Bathwick, Bath, has bequeathed £2000 to the Bristol Royal Hospital, and £1000 each to the Bristol General Hospital, the Bristol Blind Asylum, and the Maudlin-street Eye Hospital. Mr. Joseph Garside, late of Worksop, has bequeathed £250 each to the Nottingham Infirmary and the Sheffield Infirmary.—The late Mr. L. W. Dawson, of Shipley, has bequeathed £4000 each to Sir Titus Salt's Hospital at Saltaire, to the Ilkley Charity Hospital, and to the Bath Hospital at Harrogate, and £2000 each to the Bradford Infirmary, to the Bradford Eye and Ear Hospital, and to the Bradford Institution for the Blind.—Mr. T. L. Goodlake, late of Faringdon, by his will bequeaths, after the decease of his widow, £1000 to the Royal Westminster Ophthalmic Hospital and £10,000 to the Royal Berkshire Hospital, Reading.—The late Mr. John James Croome, formerly of Breadstone, Berkeley, has bequeathed £10,000 to the Gloucester Infirmary.—Mr. John Young, late of Kenley, has bequeathed £500 to the Croydon Hospital and £1000 to the Caterham Cottage Hospital.

MEDICAL DEFENCE UNION, LIMITED.—A well-attended meeting of the medical men residing in Bristol, Bath and the surrounding district was held in the Library of University College, Bristol, on Oct. 4th, to promote the formation of a local committee of the Union. Dr. Markham Skerritt occupied the chair and after a few introductory remarks the objects of the society and its methods of working were explained by various speakers. After some discussion a resolution proposing to establish a local branch was adopted.

SMALL-POX IN SOUTH AFRICA.—Small-pox is stated to be steadily increasing in the Transvaal. It would be a source of regret, but hardly of wonder, if the presence of so serious an epidemic in a country where many of the social surroundings are necessarily rough, and where, in a mixed population, preventive measures are but rudimentary and difficult to enforce, should have led to some demoralisation amongst those in authority. But the story which has reached us concerning the treatment of the small-pox patients at a certain Lazaretto is only credible on the supposition that such demoralisation has occurred to an astounding extent. It is stated that patients, in a weak and critical state from the disease, have been left in the sweltering South African heat for thirty-six hours at a time without water, and that the efforts of the medical officer (driven to distraction at the misery of his patients) to obtain water for them were of no avail. The inmates of the neighbouring gaol appear to have undergone a similar experience. No details have come to hand showing the cause of the failure in the water-supply of two institutions, which happen to lie in immediate contiguity to the town waterworks.

VOLUNTEER AMBULANCE SCHOOL OF INSTRUCTION. The winter work of the school commenced on Thursday, Oct. 5th, at the headquarters of the Queen's Westminster Rifle Volunteers, James-street, Buckingham-gate, S.W. Two classes are now under training, one going through the ordinary "First Aid" course, the other being composed of certificated members, who have an advanced course of drill and instruction in the roller bandage &c. There are now no vacancies in either class, Surgeon-Captain H. F. Stokes, senior medical officer, having announced that he will take no more men. Major Andrew Maclure, the president of the school, was present and expressed himself as being very pleased with the excellent muster of all ranks, including as it did several combatant officers. He also spoke of the absolute necessity of punctual and regular attendance, calling attention to the regulation of the school under which the name of any member of the class who missed three drills was to be at once struck off the roll. Amongst those taking part in the instruction are: Surgeon-Major Culver James; Surgeons-Captains H. F. Stokes and Edgar Hughes, London Rifle Brigade; P. P. Whitcombe, Queen's Westminster Volunteers; R. R. Sleman, Artists Rifle Volunteers; and Surgeon-Lieutenant Leopold Hudson, Middlesex Yeomanry Cavalry. The competition for the present class will be held on Thursday, Dec. 7th, and the annual dinner of the school will take place on the following Saturday at Cannon-street Hotel.

LONDON AND COUNTIES MEDICAL PROTECTION SOCIETY.—At the last County of London Sessions Abraham David Blumberg, described as a medical student of the London Hospital, pleaded guilty to having by false pretences obtained the sum of £2 with intent to defraud. Mr. Bodkin and Mr. Mallinson prosecuted for the London and Counties Medical Protection Society, and Mr. Ernest Beard defended the prisoner. Mr. Bodkin said that, although admitting that the prisoner had a certificate as a medical man in Russia, he was still not entitled to represent himself as a registered medical practitioner. He had a plate on his door on which were the words "Dr. Blumberg, M.D." Amongst his patients was one on whom he had operated for the cure of sterility with the result that her health was permanently damaged. In consideration, however, of the prisoner's pleading guilty and promising never again to practise as a medical man, and also bearing in mind that he had already been imprisoned for about a month, the society did not desire to press the charge against him, but would ask the court to deal leniently with him. Mr. Beard gave an undertaking that his client would no longer practise as a medical man. His lordship warned the prisoner that he had been guilty of a very grave breach of the law, but that on his undertaking not to offend again he (the judge) would deal with him under the First Offenders Act and bind him over

in the sum of £50 to come up for judgment if called upon. His lordship hoped that this prosecution would warn others that they would render themselves liable to imprisonment if they obtained money by representing themselves to be registered medical practitioners.

Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column, are invited to forward it to THE LANCET *Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week for publication in the next number.*

ATKINSON, JOHN P., L.R.C.P. Lond., M.R.C.S., has been appointed House Surgeon to Stourbridge Dispensary.

BARBOUR, A. H. F., M.D., C.M. F.R.C.P. Edin., has been appointed Assistant Physician to the Edinburgh Royal Maternity and Simpson Memorial Hospital, vice Murray.

BETENSON, W. B., L.R.C.P. Lond., M.R.C.S., has been appointed Medical Officer for the Fourth Sanitary District of the London and Clavering Union.

CLARKE, FRANCIS W., M.R.C.S., has been appointed Medical Officer of Health for the Lowestoft Urban and Port Sanitary Districts, and also Medical Officer at the Sanitary Hospital, vice Wynne, resigned.

CHESTNUT, HENRY, L.R.C.P., L.R.C.S. Edin., L.F.P.S. Glasg., has been appointed, *pro tem.*, Medical Officer of the Tralee Dispensary.

ELDER, G., M.B., C.M. Edin., has been appointed House Surgeon to the Edinburgh Royal Maternity and Simpson Memorial Hospital.

EVANS, HAROLD MUIR, M.B. Lond., M.R.C.S., L.R.C.P., has been appointed Assistant Registrar at the Central London Throat, Nose, and Ear Hospital, Gray's Inn-road.

FISHER, A., M.B., C.M. Edin., has been reappointed Honorary Medical Officer for East Liverpool Day Nursery.

GIBBON, J. G., M.B., B.S. Dubl., has been appointed Medical Officer for the Twelfth Sanitary District of the Wisbech Union, vice Watson, resigned.

GREEN, A. SMITH, L.R.C.P., L.M., L.R.C.S. Edin., has been appointed Medical and Vaccination Officer for the Fourth Sanitary District of Leeds Township, vice Hall.

GUBB, ALFRED S., M.D., has been appointed Medical Officer to the Metropolitan Division, National Telephone Company.

HARRIS, F., L.R.C.P. Lond., M.R.C.S., has been reappointed Honorary Oculist to the Governesses' Home, Southport.

LADMORE, P., L.D.S.R.C.S. Irel., has been appointed Honorary Dentist to the Governesses' Home, Southport.

MCNICOLL, E. D., F.R.C.S., L.R.C.P. Edin., has been appointed Honorary Medical Officer to the Governesses' Home, Southport.

MORT, H. B., L.R.C.P. Lond., M.R.C.S., has been appointed Honorary Physician to the Governesses' Home, Southport.

RICHARDS, PERCY, A.S.C., F.C.S., has been appointed Public Analyst for the District of St. Martins-in-the-Fields, vice Heaton.

SAWREY, F. E. R., M.B., Ch.B. Melb., has been appointed Senior Medical Officer for the Midwifery Department of the Women's Hospital, Melbourne, Victoria, Australia.

SIMPSON, A. R., M.D., Edin., F.R.C.P. Edin., F.F.P.S., Glasg., has been appointed Physician to the Edinburgh Royal Maternity and Simpson Memorial Hospital, vice Croom.

STEELE, JONATHAN, L.R.C.P., L.M., L.R.C.S. Edin., has been reappointed Medical Officer of Health for the Kidsgrove Urban Sanitary District.

SUFFIELD, T. J. S., L.R.C.P. Irel., L.S.A. Lond., has been appointed Medical Officer to the Sheba Gold Mining Company, Limited, South African Republic.

THOMPSON, WILLIAM, of Manchester, has been appointed Public Analyst for the Borough of Stockport.

WARD, M. A., M.D. Dubl., M.Ch., F.R.C.S. Irel., has been appointed Medical Officer to the Bathmines Commissioners.

WIGGINS, CHARLES, M.R.C.S., L.R.C.P., has been appointed Medical Officer of Health to the Bexhill Urban Sanitary District.

WOOD, JOHN CUNDELL, L.R.C.S. & P., D.P.H. Edin., has been reappointed Medical Officer of Health and Public Analyst for the County Borough of Sunderland.

ZICHY-WOINARSKI, S., M.B., Ch.B. Melb., F.R.C.S. Irel., M.R.C.S., has been reappointed Honorary Physician to In-patients, Ballarat Hospital, Victoria, Australia.

Vacancies.

For further information regarding each vacancy reference should be made to the advertisement (see Index).

BRIXTON, STREATHAM, AND HERNE-HILL DISPENSARY.—Resident House Surgeon, married. Salary £150 per annum, with furnished apartments, attendance, coal and gas. Applications to the Secretary, at the Dispensary, Water-lane, Brixton.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton.—House Physicians.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton.—Assistant Resident Medical Officer. Salary £50 per annum, with board and residence.

HOSPITAL FOR SICK CHILDREN, Great Ormond-street, W.C.—Surgical Registrar and Anæsthetist for one year. An honorarium of £40 at the expiration of that term.

HUDDERSFIELD INFIRMARY.—Senior House Surgeon. Salary £80 per annum, with board, lodging and washing. Applications to Mr. Joseph Bate, Secretary, Infirmary, Huddersfield.

NORTH-WEST LONDON HOSPITAL, Kentish Town-road.—Resident Medical Officer for six months. Salary £50.

NORTH-WEST LONDON HOSPITAL, Kentish Town-road.—Assistant Resident Medical Officer for six months.

PARISH OF GLENELG (Southern Division).—Medical Officer. Salary £120 per annum, with free house. Applications to D. McLure, Inspector of Poor, Glenelg.

PARISH OF ST. MARY, ISLINGTON.—Medical Officer for the third district. Salary £.00 per annum, with such extra medical fees as are sanctioned by the orders of the Local Government Board. Applications to the Clerk, Guardians' Offices, St. John's-road, Upper Holloway, N.

ROTHERHAM HOSPITAL AND DISPENSARY.—Assistant House Surgeon for six months. Rooms, commons and washing provided in the hospital.

ROYAL HOSPITAL FOR DISEASES OF THE CHEST, City-road, E.C.—Resident Medical Officer for six months. Salary at the rate of £100 per annum, with furnished apartments and board.

SMEDLEY'S HYDROPATHIC ESTABLISHMENT, MATLOCK.—Assistant House Physician for six months. Board and lodging &c. provided and honorarium of 20 guineas.

SOUTH DEVON AND EAST CORNWALL HOSPITAL, Plymouth.—Physician.

SOUTH DEVON AND EAST CORNWALL HOSPITAL, Plymouth.—House Surgeon. Salary £100 per annum, with board and residence.

SOUTH DEVON AND EAST CORNWALL HOSPITAL, Plymouth.—Assistant House Surgeon for six months. Salary £10, with board and residence.

ST. THOMAS'S HOSPITAL London.—Physician.

ST. THOMAS'S HOSPITAL, London.—Surgeon

THE GENERAL HOSPITAL, BIRMINGHAM.—Two Assistant House Surgeons for six months. Residence, board and washing provided.

THE GREAT NORTHERN CENTRAL HOSPITAL, HOLLOWAY-ROAD, N.—Surgeon to out-patients.

WESTON-SUPER-MARE HOSPITAL AND DISPENSARY.—Medical Officer to the Provident Dispensary attached to the hospital. Salary £80 per annum, with board, lodging and washing.

Births, Marriages and Deaths.

BIRTHS.

BATTLE.—On Oct 7th, at Mansfield-street, Cavendish-square, W., the wife of W. H. Battle, F.R.C.S., of a daughter.

KENYON.—On Oct. 4th, at Hooton Pagnell, Doncaster, the wife of C. Herbert Kenyon, Esq., M.D., of a son.

LEWIS.—On Oct. 9th, at Hamilton-terrace, N.W., the wife of Edward J. Lewis, M.B., F.R.C.S., of a son.

NALSON.—On Oct. 4th, at Hampton-road, Twickenham, the wife of Arthur W. Nalson, of a daughter.

NICHOL.—On Oct. 11th, at 11, Ethelbert-terrace, Margate, the wife of Frank Edward Nichol, M.A., M.B., of a son.

RENDALL.—On Sept. 30th, at Aix-les-Bains, the wife of Stanley Rendall, M.D., of a son.

RODEN.—On Oct. 4th, at Friar-street, Droitwich, the wife of Percy A. Roden, M.B., of a son.

WEBBER.—On Oct 7th, at Church-road, Rickmansworth, the wife of H. W. Webber, M.D. & B.S. Lond., of a daughter.

MARRIAGES.

HENRY—CRAWFORD.—On the 5th Oct., at St. John's Church, Blackheath, William Henry, B.A., M.B., Trinity College, Dublin, son of Richard Herry, M.D., of Clones, to Margaret Jane, daughter of Sir Thomas Crawford, K.C.B.

MCLEARN—JOLLIFFE.—On the 7th inst., at St. Mary's, Primrose-hill, I. Crawford McLearn, M.D., M.R.C.S., D.P.H. Eng., Holborn Infirmary, Highgate, to Maud, youngest daughter of E. Y. Jolliffe, of 100, King Henry's-road, Primrose-hill, N.W.

TRAVERS-SMITH—MENZIES.—On the 5th Oct., at St. Jude's Church, South Kensington, Victor Edwin Travers-Smith, M.D., of Trevose, Beckenham-road, to Alice Marian, only daughter of Dr. J. Irvine Menzies, of Earl's-court-square, South Kensington.

VINCENT-JACKSON—SYMONDS.—On the 11th inst., at St. Mark's, Southampton, Thomas Vincent-Jackson, Esq., F.R.C.S., and J.P., of Whetstone House, Wolverhampton, to Winifred, daughter of Mr. C. J. Symonds, Surgeon, Southampton.

WILLIAMS—MORRIS.—On the 4th Oct., at the Wesleyan Chapel, Barmouth, by the Rev. J. Lloyd Jones, Llanrwst, assisted by the Rev. Evan Evans and Z. Mather, Dr. Williams, M.A., M.B., D.P.H. (Oxon.), Cardiff, to Maggie, only daughter of W. J. Morris, Esq., Glanglasfor, Barmouth.

DEATHS.

PUGHE.—On Oct. 8th, at Bosne, Hyfeyd, Rock Springs, Wyoming, U.S.A., the residence of Griff Edwards, Esq., Tiailiesin Wilim Owen Pughe, M.B. Lond., M.R.C.S. Eng., of 84, Catherine-street, Liverpool, fifth son of John Pughe, Esq., F.R.C.S., J.P., Aberdovey, North Wales, aged 37 years.

PARSONS.—On Oct. 7th, at The Cornhill, Bridgwater, John Parsons, F.R.C.S. Eng., aged 79 years.

WALKER.—On Oct. 10th, at West Dulwich, William Walker, M.D., LL.D., Honorary Physician to the Queen, Deputy-Surgeon-General, I.M.S., retired aged 60.

N.B.—A fee of 5s. is charged for the Insertion of Notices of Births, Marriages and Deaths.

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, October 12th, 1893.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radia in Vacuo.	Maximum Temp. Shade.	Min. Temp	Rainfall.	Remarks at 8.30 A.M.
Oct. 6	29·49	W.	52	50	105	64	49	·29	Cloudy
,, 7	29·58	S.W.	53	52	102	64	49	·10	Raining
,, 8	29·64	S.W.	52	51	81	61	49	·11	Cloudy
,, 9	29·77	E.	53	52	96	64	46	.	Hazy
,, 10	29·82	W.	54	53	99	61	50	1·22	Overcast
,, 11	29·80	S.W.	60	59	90	63	53	·12	Cloudy
,, 12	30·00	N.	51	49	91	57	47	·65	Bright

Medical Diary for the ensuing Week.

Monday, October 16.

KING'S COLLEGE HOSPITAL.—Operations, 2 P.M.; Fridays and Saturdays at the same hour.

ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1.30 P.M.; and on Tuesday, Wednesday, Friday, and Saturday at the same hour.

ST. MARK'S HOSPITAL.—Operations, 2 P.M.; Tuesday, 2.30 P.M.

ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 2.30 P.M.; Friday, 2 P.M.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, daily at 10 A.M.

ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1.30 P.M.; and each day at the same hour.

CHELSEA HOSPITAL FOR WOMEN.—Operations, 2 P.M.; Thursday, 2 P.M.

HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M.; and on Thursday at the same hour.

METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.

ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.

CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and each day in the week at the same hour.

UNIVERSITY COLLEGE HOSPITAL. Ear and Throat Department, 9 A.M.; Thursday, 9 A.M. Eye Department, 2 P.M.

ROYAL EYE HOSPITAL, SOUTHWARK.—Hour of attendance, 2 P.M., and other days at the same hour. Operations daily.

LONDON POST-GRADUATE COURSE.—Royal London Ophthalmic Hospital, Moorfields: 1 P.M., Mr. A. Stanford Morton: Affections of Eyelids.

ST. JOHN'S HOSPITAL FOR DISEASES OF THE SKIN (Leicester-sq., W.C.)—5.30 P.M. Dr. Morgan Dockrell: Diseases of the Hair and Nails.

MEDICAL SOCIETY OF LONDON.—8.30 P.M. Opening Address by the President (Dr. J. S. Bristowe): Extreme Infrequency of Pulse and its association with Epileptiform Attacks.—Mr. Arthur Maude: Some Less-known Factors in Graves' Disease.—Mr. J. Berry will show some Specimens of Exophthalmic Goitre.

Tuesday, October 17.

GUY'S HOSPITAL.—Operations, 1.30 P.M., and on Friday at the same hour. Ophthalmic Operations on Monday at 1.30 and Thursday at 2 P.M.

CANCER HOSPITAL, BROMPTON.—Operations, 2 P.M.; Saturday, 2 P.M.

WESTMINSTER HOSPITAL.—Operations, 2 P.M.

WEST LONDON HOSPITAL.—Operations, 2.30 P.M.

UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M. Skin Department, 1.45; Saturday, 9.15.

ST. MARY'S HOSPITAL.—Operations, 1.30 P.M. Consultations, Monday, 2.30 P.M. Skin Department, Monday and Thursday, 9.30 A.M. Throat Department, Tuesdays and Fridays, 1.30 P.M. Electrotherapeutics, same day, 2 P.M.

LONDON POST-GRADUATE COURSE.—Hospital for Skin Diseases, Blackfriars: 4 P.M., Mr. Jonathan Hutchinson: The Lupus Family.—Bethlem Hospital: 2 P.M., Dr. Corner: Hypochondriasis.

PATHOLOGICAL SOCIETY OF LONDON.—President's Address. Mr Hudson: Kidney with Double Ureter.—Mr. Clutton: Congenital Deformity of Lip.—Mr. Edgar Willett: Abnormalities of the Intestinal Tract (with specimens).—Mr. Berry: (1) Bullet Wound of the Heart; (2) Wound of the Carotid.—Mr. Jackson Clarke: A New Phase of "Coccidium Oviforme."—Dr. Turner: Intussusception.

Wednesday, October 18.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.

MIDDLESEX HOSPITAL.—Operations, 1.30 P.M.; Saturdays, 2 P.M. Obstetrical Operations, Thursdays, 2 P.M.

CHARING-CROSS HOSPITAL.—Operations, 2 P.M., and on Thursday and Friday at the same hour.

ST. THOMAS'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour.

LONDON HOSPITAL.—Operations, 2 P.M.; Thursday and Saturday, same hour.

ST. PETER'S HOSPITAL, COVENT-GARDEN.—Operations, 2 P.M.

SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2.30 P.M.

GREAT NORTHERN CENTRAL HOSPITAL.—Operations, 2 P.M.

UNIVERSITY COLLEGE HOSPITAL.—Operations, 1.30 P.M. Dental Department, 9.30 A.M. Eye Department, 2 P.M.

ROYAL FREE HOSPITAL.—Operations, 2 P.M., and on Saturday.

CHILDREN'S HOSPITAL, GREAT ORMOND-STREET.—Operations, 9.30 A.M. Surgical Visits on Wednesday and Saturday at 9.15 A.M.

LONDON POST-GRADUATE COURSE.—Hospital for Consumption, Brompton: 4 P.M., Dr. C. Y. Biss: Aneurysm of the Aorta.—Royal London Ophthalmic Hospital, Moorfields: 8 P.M., Mr. A. Q. Silcock: Myopia.

ROYAL MICROSCOPICAL SOCIETY.—8 P.M. Dr. R. L. Maddox: Remarks on some Progressive Phases of Spirillum Volutans.—Mr. F. Chapman: Foraminifera of the Gault of Folkestone.

Thursday, October 19.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M. Surgical Consultations, Wednesday, 1.30 P.M. Ophthalmic Operations, Friday, 1.30 P.M.

UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M. Ear and Throat Department, 9 A.M. Eye Department, 2 P.M.

LONDON POST-GRADUATE COURSE.—Hospital for Sick Children, Great Ormond-st.: 3.30 P.M., Mr. John H. Morgan: Congenital Deformities of Head and Face.—National Hospital for the Paralysed and Epileptic: 2 P.M., Dr. Gowers: The Degenerative Diseases of the Nervous System.—London Throat Hospital (Great Portland-st.): 8 P.M., Dr. Edward Law: Examination of the Throat and Nose.—Central London Sick Asylum: 5.30 P.M., Dr. Bristowe: Cases in the Wards.

HARVEIAN SOCIETY.—8.30 P.M. Dr. J. Milne Bramwell: Hypnotism (with illustrative cases).

OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM.—8.30 P.M. Patients and Card Specimens at 8 P.M. Address by the President. Card Specimens:—Mr. Beaumont: Neoplasm of the Iris.—Mr. Rolston: Traumatic Dislocation of Both Lenses.—Mr. Treacher Collins: The Eyelashes carried into the Vitreous Chamber by a Wound with a Knife.—Dr. Balmanno Squire: Lupus Vulgaris involving the Eyeballs.—Dr. S. Stephenson: A Modified Desmarres' Retractor.—Mr. Ernest Clarke: Slight Enlargement of Right Thyroid with Graefe's Lid Sign on Right Side only. Papers:—Mr. H. Work Dodd: One Hundred Cases of Epilepsy, their Refraction and their Treatment by Glasses.—Mr. Simeon Snell: (1) Quickly-growing Sarcoma of Both Orbits in a Child with Secondary Growths; (2) Unusual Appearances after Extraction of Cataract (many years ago) simulating a Cyst, really due to Distended Lens Capsule.—Dr. Howe: Autochromatic Plates in Photography of the Interior of the Eye.—Dr. Brailey: Failure of Central Vision in each Eye (with ophthalmoscopic drawing).—Mr. Bockenham: Benzoyl-pseudo-tropeine.

Friday, October 20.

UNIVERSITY COLLEGE HOSPITAL.—Eye Department, 2 P.M.

LONDON POST-GRADUATE COURSE.—Hospital for Consumption, Brompton: 4 P.M., Dr. C. Y. Biss: Aneurysm of the Aorta.

Saturday, October 21.

UNIVERSITY COLLEGE HOSPITAL.—Skin Department, 9.15 A.M.

LONDON POST-GRADUATE COURSE.—Bethlem Hospital: 11 A.M., Dr. Percy Smith: Melancholia.

Notes, Short Comments & Answers to Correspondents.

EDITORIAL NOTICE.

IT is most important that communications relating to the Editorial business of THE LANCET should be addressed *exclusively* "TO THE EDITORS," and not in any case to any gentleman who may be supposed to be connected with the Editorial staff. It is urgently necessary that attention be given to this notice.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

Lectures, original articles, and reports should be written on one side only of the paper.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

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A QUACK ADVERTISEMENT.

STARTLING as are the methods whereby the modern advertiser seeks to strike the attention, few devices could be more ingenious than one which is stated in all seriousness to come from New Zealand. In that country the revenue is increased by letting the gummed side

of stamps to advertisers. This has been taken advantage of by an enterprising patent medicine vendor, the name of whose wares is left upon the tongue of the person moistening the stamp. This in itself would be rather irritating to most people, but if the story told by our contemporary, the *Manchester Examiner*, is not slightly imaginative we can heartily sympathise with the practitioner, if not with the way in which he showed his disapprobation of the perverse ingenuity of the advertising quack. According to this correspondent "a man called on a doctor about some ailment and whilst waiting his turn stuck a stamp on a letter. When a minute later the doctor bade the man put out his tongue he read thereon in letters of blue: 'Stop that cough. Use ——'s pectoral.' Unable to treat calmly so shameless a tout, the doctor kicked him downstairs."

A POINT IN MEDICAL JURISPRUDENCE.

IN the *Kerry Weekly Reporter* of the 7th inst. a long account is given of a coroner's inquiry into the circumstances connected with the death of an old man who was accidentally killed on the Tralee and Dingle Railway. After evidence had been given by persons who witnessed the accident, the results of which consisted in a compound fracture of one of the legs of the injured man and severe scalp wounds, the testimony of several medical men was brought forward. The interest in the investigation lay in the slight divergence of opinion on the part of the medical witnesses as to whether the operation found to be at once necessary in view of the serious nature of the compound fracture expedited the death of the man—whether, in fact, the deceased might not have lived for a time if the operation had not been so promptly performed, though he could not, under the circumstances, have ultimately recovered. This is a point, however, which it would not, without fuller information than that provided in the report before us, be expedient to discuss here.

CLIMATE OF SABATHA.

Major H. A. Walsh (Bridgwater).—Sabatha has a good climate for an Indian station and is fairly healthy. It is in the hills and is close to Simla. Apart from considerations of health, however, there are, of course, other considerations with regard to difficulties in the training and education of a child of the age named by our correspondent which have to be taken into account. Although we do not consider that the climate of India, even in the hills, is as good as that of this country for a growing girl, we nevertheless think that there would not be much risk to health in Sabatha and Simla.

A Bibliomaniac.—Dr. Puschmann's Bibliography is entitled "Geschichte der Medicin und der Krankheiten" and occupies pages 323 to 353 of the "Jahresbericht der Gesammten Medicin," edited by Virchow and Hirsch, published at Berlin in 1892. There is a copy in the College of Surgeons.

H.B.—It will be quite proper to do so. The more quietly it is done the better, as, for instance, by a visiting card with the old address marked out and the new one inserted.

BORN WITH TEETH.

To the Editors of THE LANCET.

SIRS,—The following may be of interest to some of your readers. A young woman aged twenty-seven who (her mother informed me) was born with the two lower incisors through the gums was confined on the 17th of last month of her second child, a boy. He exhibited the same peculiarity at birth as his mother. Five days later I attended a sister of hers in her first confinement, whose age is thirty-four, and whose child, a girl, was also born with the two lower incisors prominently forward.

I am, Sirs, yours faithfully,

O. E. B. LIMRICK, L.R.C.P., L.R.C.S.I., &c.

Liverpool, Oct. 9th, 1893.

"SAVE ME FROM MY FRIENDS"—AT WICK.

MANY a young man beginning practice has to regret that his friends display so little taste in their attempts to forward his progress. The following is a case in point from the *Northern News*, published at Wick, on July 25th; and a similar paragraph appears in the *John o' Groat's Journal* of the same town of July 28th:—

> "*Presentation to a Wick Doctor.*—We observe that Dr. Charles G. Rae, who has now begun practice in Wick, was, before leaving his late appointment at Kilpatrick, Dumbartonshire, where he held an assistantship, presented with a purse of sovereigns as a mark of the esteem in which he was held by the people of the district, the presentation being made under the direction of Lord Overtoun. Dr. Rae, we notice, was trained in Edinburgh, and was a distinguished student, having graduated with honours."

We venture to believe that Mr. Rae will disclaim the paragraph.

FAKIR WISDOM.

THE following story from the Calcutta Medical College shows that the fakir is not always the father of wisdom that legendary story-tellers would have us believe. A native who has been admitted into hospital suffering from tetanus has informed the authorities that for a number of years he had suffered from a chronic disorder and that a fakir undertook to cure him for a small remuneration. The treatment, or rather mal-treatment, was begun by the blessing of a splinter of bone, which was then inserted into the flesh of the patient's arm. Paralysis of the arm ensued, and lockjaw followed on the extraction of the bone, which was found to be one inch in length. The patient, according to the report, is in a very critical condition.

Cholera Precautions.—The fees seem to us to be too low, especially for night visits. The nature of the service is such as involves a certain amount of risk to the medical man. Doubtless it is one for which the local authority cannot be expected to pay high fees; but for genuine cholera cases the fees should be higher. The scale is similar to that offered by the sanitary authorities of Islington.

"MAKING A SPECIALITY."

THE following paragraph is from the *Jersey Evening Post*:—

> "*Dr. Hardwick Le Cronier.*—We hear that this gentleman, who left the Island a few days ago, has gone to London with a view to obtaining a thorough knowledge of the latest improvements in the treatment of diseases specially connected with the eye, ear and throat. We understand that it is the intention of Dr. H. Le Cronier to make a speciality of these branches of his profession on his return to the Island."

It will be interesting to learn what notice Mr. Le Cronier will take of this remarkable paragraph. The writer of it must have curious notions of the way of "making a speciality."

THE NEW DEPARTURE IN M.D.'S.

A CORRESPONDENT sends us information that the M.D.'s of the Limited Company are already being turned to practical purposes and that one holder has been appointed medical man to the Rechabites and is regarded by many as a properly qualified medical man. Our correspondent will oblige us by further information.

Ulna.—Judging from the circular, we should say that our correspondent had not been treated with due consideration and that his critics should either have submitted the question to arbitration or have withdrawn the charge.

Mr. Edward Lánnell.—Our correspondent will perceive by reference to THE LANCET of Sept. 30th, p. 857, that the circumstance has already been noticed.

COMMUNICATIONS not noticed in our present issue will receive attention in our next.

PUBLISHER'S NOTICE.

IN order to facilitate the work of reference to the volumes of THE LANCET, we have arranged to publish duplicate copies of the Index to each half-yearly volume in a form in which they may be subsequently filed or bound together. Those of our subscribers who may wish to be supplied with loose copies can obtain the same (without extra charge) on making application to the Publisher of THE LANCET.

During the week marked copies of the following newspapers have been received:—*Eastern Daily News, Birmingham Gazette, Express and Star (Wolverhampton), Tunbridge Wells Standard, Kentish Observer, Falkirk Herald, Bath Gazette, Glasgow Evening News, Scottish Field, Madras Times, Le Temps (Paris), Sheffield Telegraph, Dundee Advertiser, Irish Times, Scottish Leader, Manchester Examiner, Scotsman, Public Health, Sussex News, Citizen, Leicester Post, South Wales Daily News, Western Mail, English Mechanic, Leeds Mercury, Liverpool Daily Post, Yorkshire Post, Bristol Mercury, Local Government Chronicle, Reading Mercury, Morning, Sanitary Record, Weekly Free Press and Aberdeen Herald, Hertfordshire Mercury, City Press, Kent and Sussex Courier, Mining Journal, Local Government Journal, Guy's Hospital Gazette, Stratford Express, Torquay Times, Daily Telegraph (Sydney), The Gas World, Builder, Sunday Times, Architect, Times of India, Pioneer Mail, West Middlesex Advertiser, Surrey Advertiser, West Middlesex Standard, Yorkshire Herald, Birmingham Daily Post, Messenger, Falkirk Mail, Beckenham Advertiser, Kerry Weekly Reporter, &c. &c.*

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